

11. TRANSMITTER ABOVE 1 GHz

LIMITS

FCC §15.205 and §15.209

Limits for radiated disturbance of an intentional radiator		
Frequency range (MHz)	Limits (µV/m)	Measurement Distance (m)
0.009 – 0.490	2400 / F (kHz)	300
0.490 – 1.705	24000 / F (kHz)	30
1.705 – 30.0	30	30
30 – 88	100**	3
88 - 216	150**	3
216 – 960	200**	3
Above 960	500	3

** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this part, e.g. §§ 15.231 and 15.241.

FCC Part 15.205 (a) : Only spurious emissions are permitted in any of the frequency bands listed below :

MHz	MHz	MHz	MHz	GHz	GHz
0.009 ~ 0.110	8.41425 ~ 8.41475	108 ~ 121.94	1300 ~ 1427	4.5 ~ 5.15	14.47 ~ 14.5
0.495 ~ 0.505	12.29 ~ 12.293	123 ~ 138	1435 ~ 1626.5	5.35 ~ 5.46	15.35 ~ 16.2
2.1735 ~ 2.1905	12.51975 ~ 12.52025	149.9 ~ 150.05	1645.5 ~ 1646.5	7.25 ~ 7.75	17.7 ~ 21.4
4.125 ~ 4.128	12.57675 ~ 12.57725	156.52475 ~ 156.52525	1660 ~ 1710	8.025 ~ 8.5	22.01 ~ 23.12
4.17725 ~ 4.17775	13.36 ~ 13.41	156.7 ~ 156.9	1718.8 ~ 1722.2	9.0 ~ 9.2	23.6 ~ 24.0
4.20725 ~ 4.20775	16.42 ~ 16.423	162.0125 ~ 167.17	2200 ~ 2300	9.3 ~ 9.5	31.2 ~ 31.8
6.215 ~ 6.218	16.69475 ~ 16.69525	167.72 ~ 173.2	2310 ~ 2390	10.6 ~ 12.7	36.43 ~ 36.5
6.26775 ~ 6.26825	16.80425 ~ 16.80475	240 ~ 285	2483.5 ~ 2500	13.25 ~ 13.4	Above 38.6
6.31175 ~ 6.31225	25.5 ~ 25.67	322 ~ 335.4	2655 ~ 2900		
8.291 ~ 8.294	37.5 ~ 38.25	399.90 ~ 410	3260 ~ 3267		
8.362 ~ 8.366	73 ~ 74.6	608 ~ 614	3332 ~ 3339		
8.37625 ~ 8.38675	74.8 ~ 75.2	960 ~ 1240	3345.8 ~ 3358		
			3600 ~ 4400		

▪ FCC Part 15.205(b) : The field strength of emissions appearing within these frequency bands shall not exceed the limits shown in §15.209. At frequencies equal to or less than 1000 MHz, compliance with the limits in §15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000 MHz, compliance with the emission limits in §15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in §15.35 apply to these measurements.

FCC §15.407 (b)

(b) Undesirable emission limits. Except as shown in paragraph (b)(7) of this section, the maximum emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:

- (1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (2) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (3) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (4) For transmitters operating in the 5.725-5.85 GHz band:
 - (i) All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.
- (5) The emission measurements shall be performed using a minimum resolution bandwidth of 1 MHz. A lower resolution bandwidth may be employed near the band edge, when necessary,
provided the measured energy is integrated to show the total power over 1 MHz.
- (6) Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in §15.209. Further, any U-NII devices using an AC power line are required to comply also with the conducted limits set forth in §15.207.
- (7) The provisions of §15.205 apply to intentional radiators operating under this section.
- (8) When measuring the emission limits, the nominal carrier frequency shall be adjusted as close to the upper and lower frequency band edges as the design of the equipment permits.

Note

- Limit translation to field strength level (FCC §15.407)

$$E[\text{dBuV/m}] = \text{EIRP}[\text{dBm}] + 95.2 = -27\text{dBm} + 95.2 = 68.2\text{dBuV/m}$$

$$E[\text{dBuV/m}] = \text{EIRP}[\text{dBm}] + 95.2 = -17\text{dBm} + 95.2 = 78.2\text{dBuV/m}$$

TEST PROCEDURE

The EUT is placed on a non-conducting table 80 cm above the ground plane for below 1GHz and 100 cm for above 1GHz. The antenna to EUT distance is 3 meters. The EUT is configured in accordance with ANSI C63.10. The EUT is set to transmit in a continuous mode.

For measurements below 1 GHz the resolution bandwidth is set to 100 kHz for peak detection measurements or 120 kHz for quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

Reference to KDB 789033 D02 v02r01 UNII part G) 6) c) Method AD:

For measurements above 1 GHz the resolution bandwidth is set to 1 MHz; the video bandwidth is set to 3 MHz for peak measurements and add duty cycle factor to the reading offset for average measurements.

Pre-scans to detect harmonic and spurious emissions, the resolution bandwidth is set to 1 MHz; the video bandwidth is set to 30 KHz for peak measurements.

The spectrum from 1GHz to 40 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in each applicable band.

(From 30MHz to 1GHz, test was performed with the EUT set to transmit at the channel with highest output power)

The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized in both the vertical and the horizontal positions.

Note : Emission was pre-scanned from 9KHz to 30MHz; No emissions were detected which was at least 20dB below the specification limit (consider distance correction factor).
Per FCC part 15.31(o), test results were not reported.

Although these tests were performed other than open field test site, adequate comparison measurements were confirmed against 30 m open area test site.

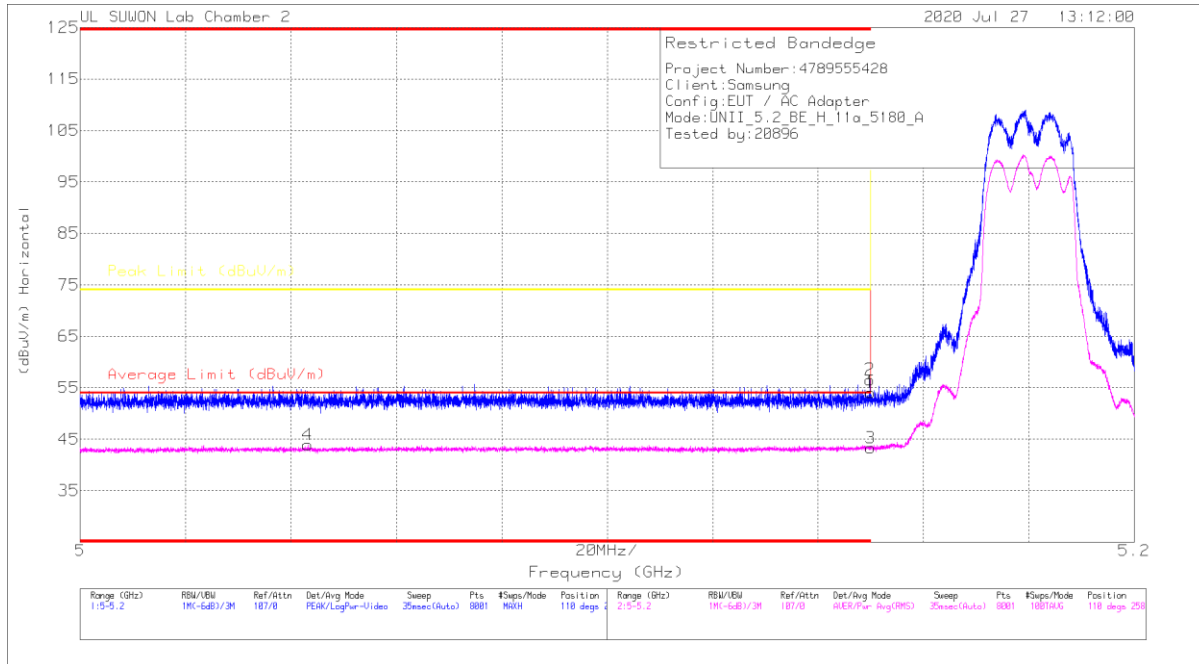
Therefore sufficient tests were made to demonstrate that the alternative site produces results that correlate with the one of tests made in an open field based on KDB 414788.

11.1. 5.2 GHz

11.1.1. TX ABOVE 1GHz 802.11a 2Tx MODE IN THE 5.2GHz BAND

RESTRICTED BANDEDGE (LOW CHANNEL)

HORIZONTAL PEAK AND AVERAGE DATA



Trace Markers

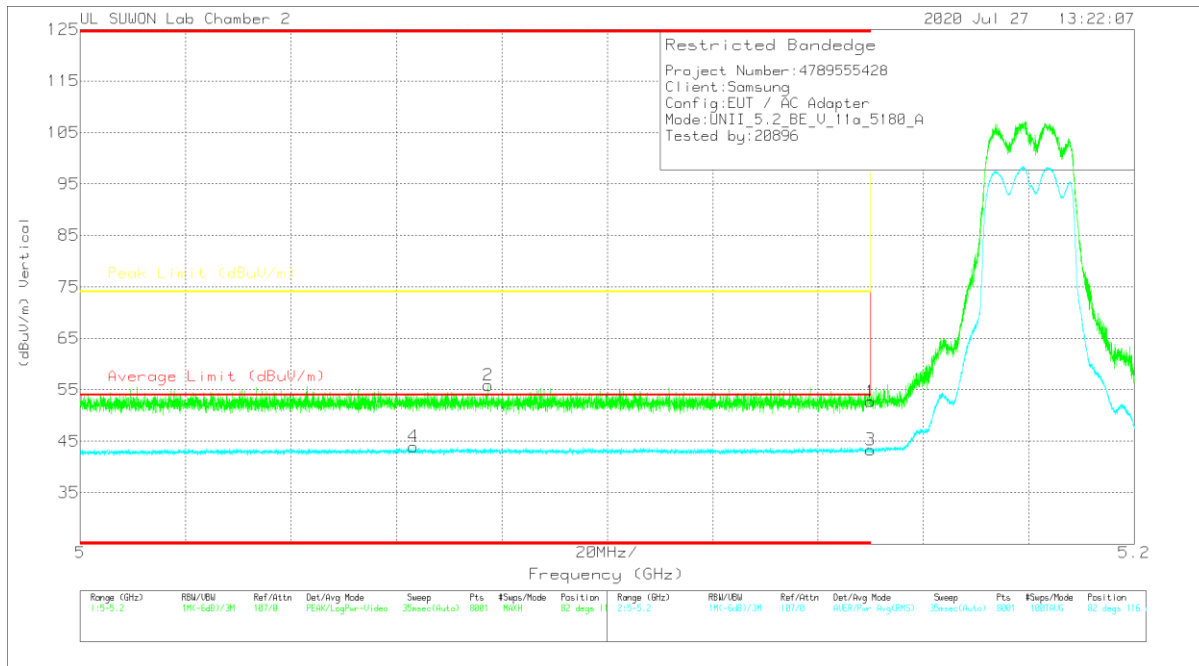
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00218957	10dB_ATT[dB]	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.15	37.71	Pk	34.5	-18.1	0	54.11	-	-	74	-19.89	110	258	H
2	* 5.14985	40.13	Pk	34.5	-18.1	0	56.53	-	-	74	-17.47	110	258	H
3	5.15	26.9	RMS	34.5	-18.1	0	43.3	54	-10.7	-	-	110	258	H
4	* 5.04318	27.73	RMS	34.3	-18.1	0	43.93	54	-10.07	-	-	110	258	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

VERTICAL PEAK AND AVERAGE DATA



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00218957	10dB_ATT[dB]	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Altitude (feet)	Height (m)	Polarity
1	5.15	36.33	PK	34.5	-18.1	0	52.73	-	-	74	-21.27	82	116	V
2	* 5.07738	39.66	PK	34.4	-18.2	0	55.86	-	-	74	-18.14	82	116	V
3	5.15	26.94	RMS	34.5	-18.1	0	43.34	54	-10.66	-	-	82	116	V
4	* 5.06323	27.86	RMS	34.3	-18.2	0	43.96	54	-10.04	-	-	82	116	V

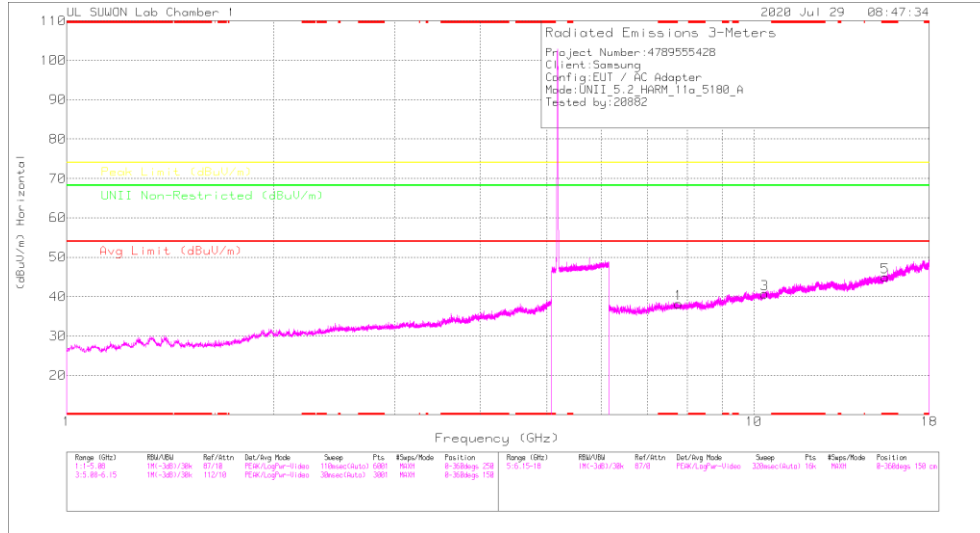
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

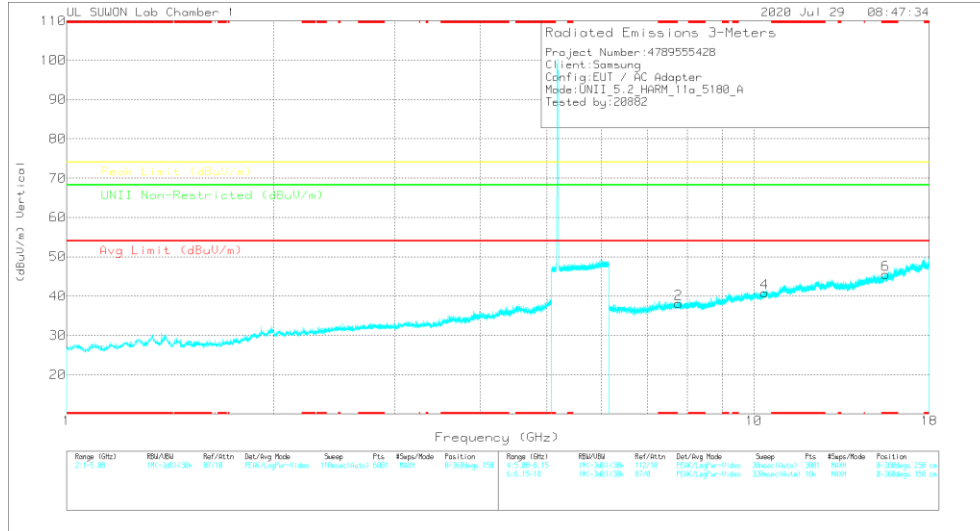
RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



LOW CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

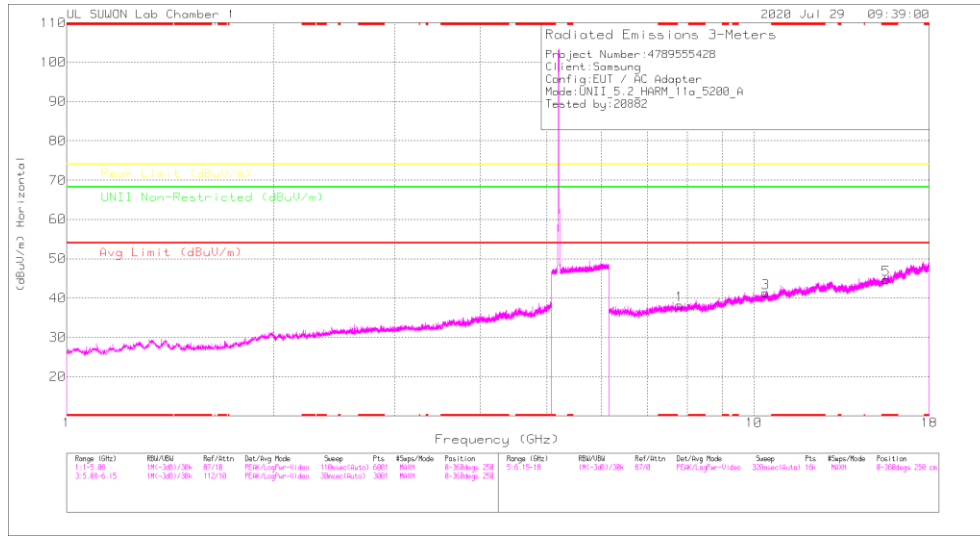
LOW CHANNEL DATA

Radiated Emissions

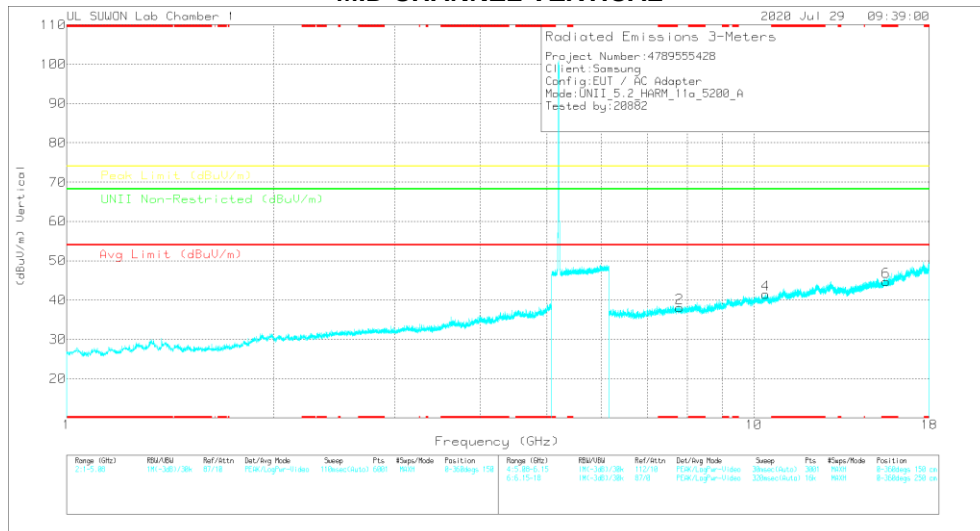
Frequency (GHz)	Meas Reading (dBuV)	Det	3117_00158717	6GHz_HF[dB]	DC Cor (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted (dBuV/m)	Margin (dB)	Altitude (Degs)	Height (cm)	Polarity
7.77775	38.82	PK-U	35.9	-26.6	0	48.12	-	-	-	-	68.2	-20.08	360	100	H
7.76941	38.47	PK-U	35.9	-26.6	0	47.77	-	-	-	-	68.2	-20.43	360	100	V
10.35565	35.14	PK-U	37.6	-22.3	0	50.44	-	-	-	-	68.2	-17.76	360	100	H
10.35771	35.54	PK-U	37.6	-22.3	0	50.84	-	-	-	-	68.2	-17.36	360	100	V
* 15.53956	35.89	PK-U	40.2	-20.9	0	55.19	-	-	74	-18.81	-	-	360	100	H
* 15.53904	35.97	PK-U	40.2	-20.9	0	55.27	-	-	74	-18.73	-	-	360	100	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
PK-U - U-NII: Maximum Peak

MID CHANNEL HORIZONTAL



MID CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

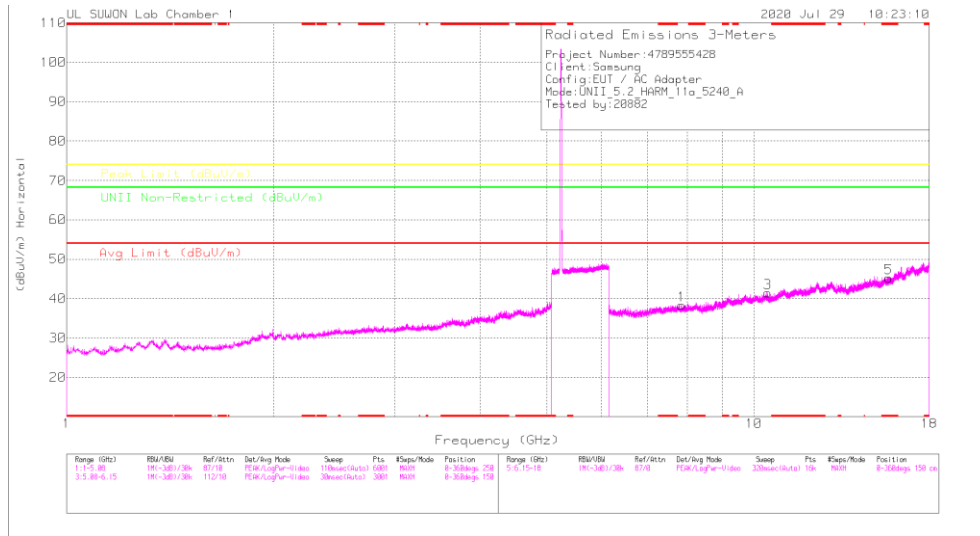
MID CHANNEL DATA

Radiated Emissions

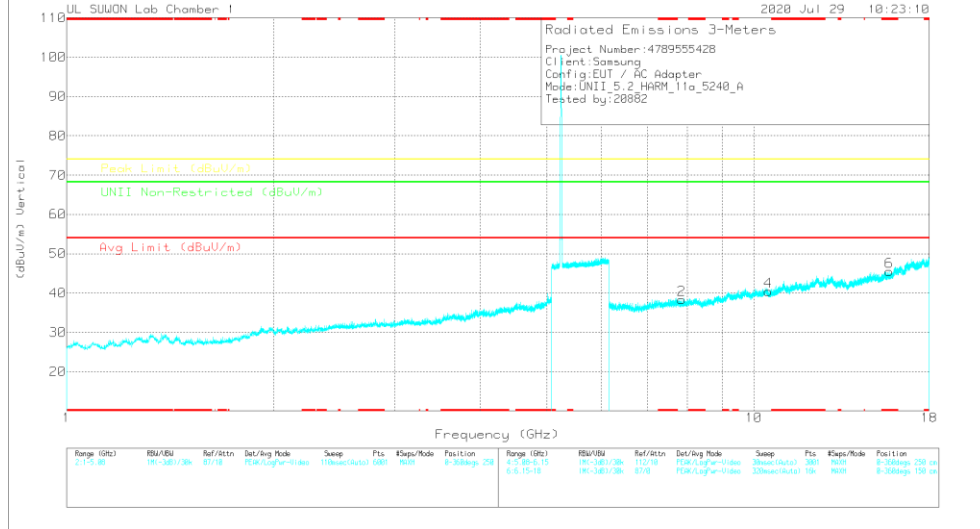
Frequency (GHz)	Meas Reading (dBuV)	Det	317_0036717	6GHz HPBW	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted (dBuV/m)	Margin (dB)	Altitude (m)	Height (m)	Polarity
7.7886	39.27	PK-U	35.9	-26.6	0	49.57	-	-	-	-	68.2	-19.63	360	100	H
7.7906	39.51	PK-U	35.9	-26.6	0	49.51	-	-	-	-	68.2	-19.39	360	100	V
10.41105	35.11	PK-U	37.6	-21.7	0	51.01	-	-	-	-	68.2	-17.19	360	100	H
10.41256	35.05	PK-U	37.6	-21.7	0	50.95	-	-	-	-	68.2	-17.25	360	100	V
* 15.5817	36.2	PK-U	40.2	-21.2	0	55.2	-	-	74	-18.8	-	-	360	100	H
* 15.58254	36.23	PK-U	40.2	-21.3	0	55.13	-	-	74	-18.87	-	-	360	100	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
PK-U - U-NII: Maximum Peak

HIGH CHANNEL HORIZONTAL



HIGH CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

HIGH CHANNEL DATA

Radiated Emissions

Frequency (GHz)	Mean Reading (dBuV)	Det	3117_00168717	6GHz_HFSS	DC Corr (dB)	Combined Reading (dBuV/m)	Avg Limit (dBuV/m)	Margn (dB)	Peak Limit (dBuV/m)	Margn (dB)	UNII Non-Restricted (dBuV/m)	Margn (dB)	Altitude (m)	Height (cm)	Polarity
7.85556	39.04	PK-U	35.9	-26.8	0	48.14	-	-	-	-	68.2	-20.06	360	100	H
7.85306	39.16	PK-U	35.9	-26.7	0	48.36	-	-	-	-	68.2	-19.84	360	100	V
10.47713	35.05	PK-U	37.7	-22.4	0	50.35	-	-	-	-	68.2	-17.85	360	100	H
10.47986	35.15	PK-U	37.7	-22.4	0	51.45	-	-	-	-	68.2	-16.75	360	100	V
* 15.70677	30.03	PK-U	40.4	-21.3	0	49.13	-	-	74	-24.87	-	-	360	100	H
* 15.70903	36.69	PK-U	40.4	-21.2	0	55.89	-	-	74	-18.11	-	-	360	100	V

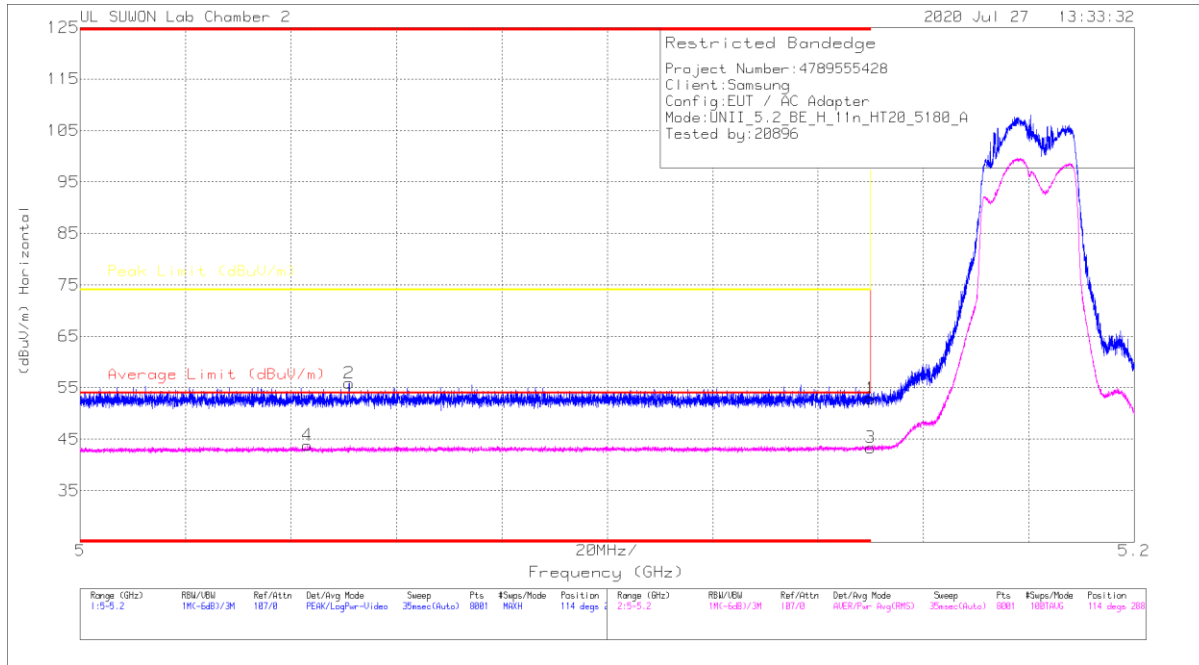
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

PK-U - U-NII: Maximum Peak

11.1.2. TX ABOVE 1GHz 802.11n HT20 2Tx MODE IN THE 5.2GHz BAND

RESTRICTED BANDEDGE (LOW CHANNEL)

HORIZONTAL PEAK AND AVERAGE DATA



Trace Markers

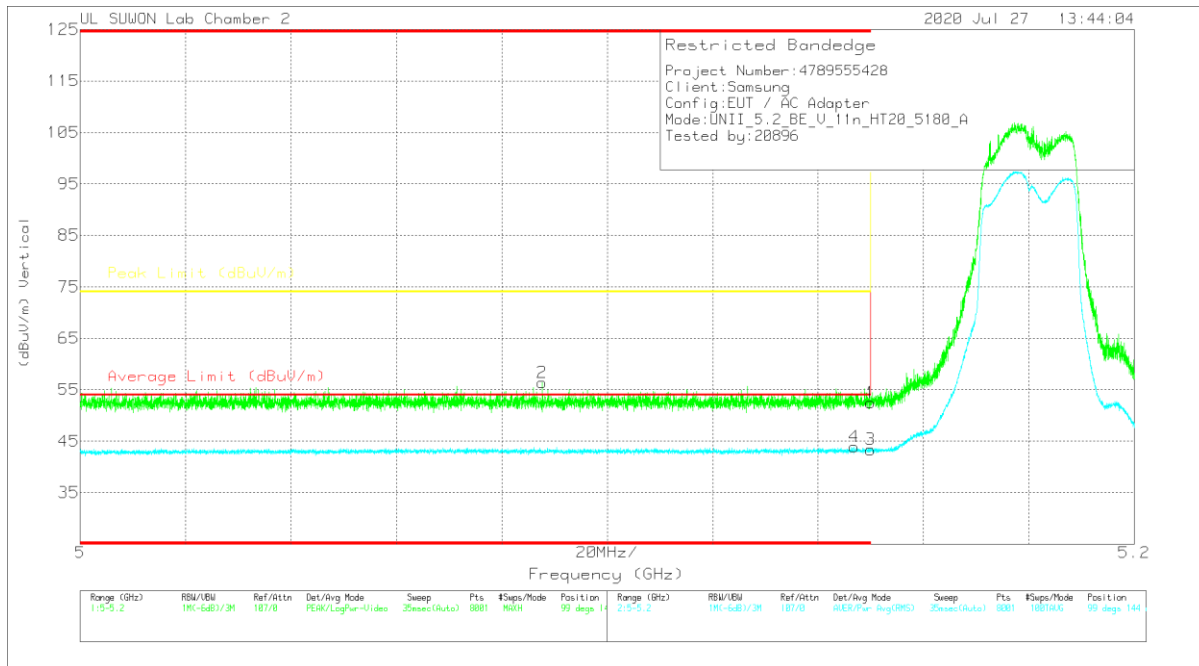
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_50218957	10dB_ATT[dB]	DC Cor (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Altitude (dBm)	Height (cm)	Polarity
1	5.15	36.49	Pk	34.5	-18.1	0	52.89	-	-	74	-21.11	114	288	H
2	*5.05103	39.8	Pk	34.3	-18.2	0	55.9	-	-	74	-18.1	114	288	H
3	5.15	26.97	RMS	34.5	-18.1	0	43.37	54	-10.63	-	-	114	288	H
4	*5.0431	27.61	RMS	34.3	-18.1	0	43.81	54	-10.19	-	-	114	288	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

VERTICAL PEAK AND AVERAGE DATA



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00218957	10dB_ATT[dB]	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Altitude (m)	Height (m)	Polarity
1	5.15	36.07	PK	34.5	-18.1	0	52.47	-	-	74	-21.53	99	144	V
2	*5.08765	40.18	PK	34.4	-18.2	0	56.38	-	-	74	-17.62	99	144	V
3	5.15	26.98	RMS	34.5	-18.1	0	43.38	54	-10.62	-	-	99	144	V
4	*5.1469	27.51	RMS	34.5	-18.1	0	43.91	54	-10.09	-	-	99	144	V

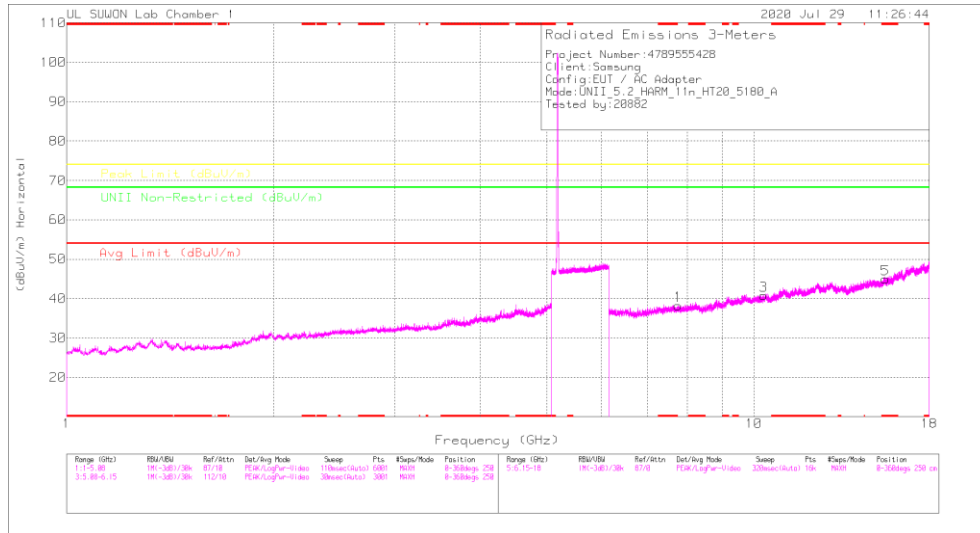
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

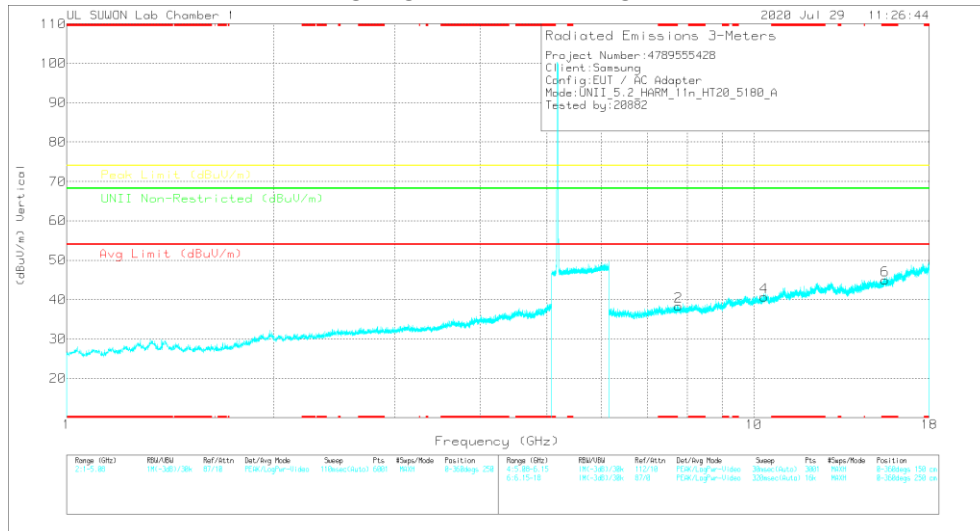
RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



LOW CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL DATA

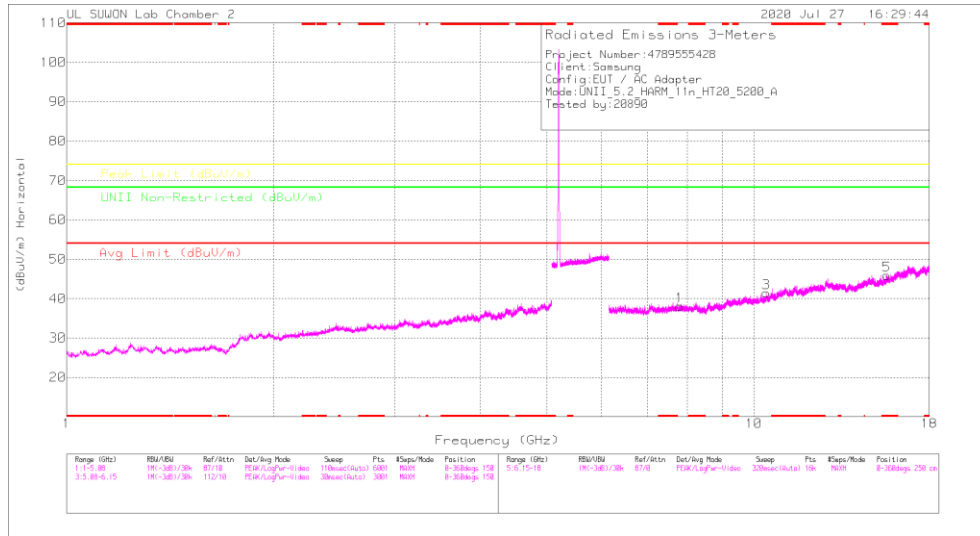
Radiated Emissions

Frequency (GHz)	Meas Reading (dBuV)	Det	317_00166717	6GHz_HF[5B]	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted (dBuV/m)	Margin (dB)	Altitude (Feet)	Height (m)	Polarity
7.75582	38.48	PK-U	35.9	-25.5	0	47.98	-	-	-	-	68.2	-20.32	360	100	H
7.75475	38.39	PK-U	35.9	-26.5	0	47.79	-	-	-	-	68.2	-20.41	360	100	V
10.33892	35.64	PK-U	37.6	-22.2	0	51.04	-	-	-	-	68.2	-17.16	360	100	H
10.33996	35.41	PK-U	37.6	-22.1	0	50.91	-	-	-	-	68.2	-17.29	360	100	V
* 15.53805	36.03	PK-U	40.2	-20.9	0	55.33	-	-	74	-18.67	-	-	360	100	H
* 15.54099	36.26	PK-U	40.2	-20.9	0	55.56	-	-	74	-18.44	-	-	360	100	V

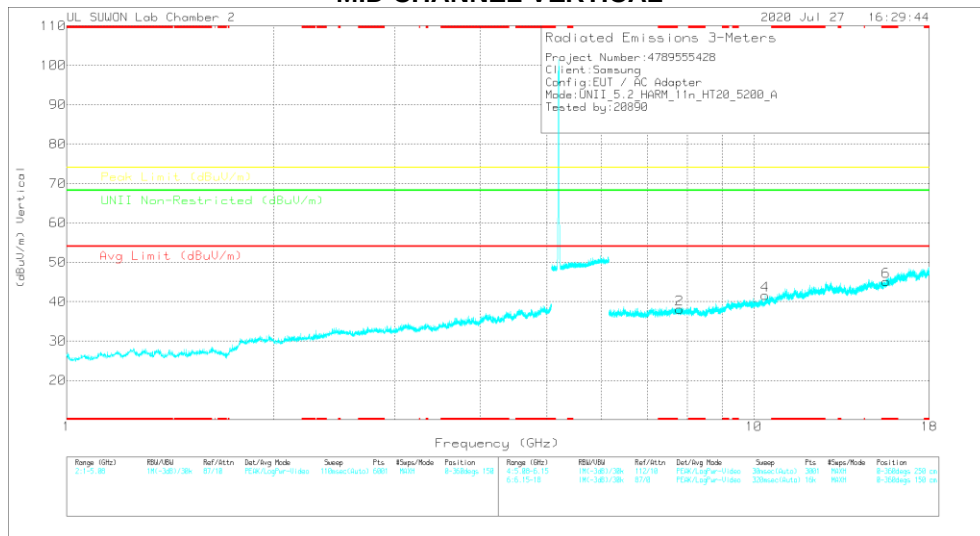
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

PK-U - U-NII: Maximum Peak

MID CHANNEL HORIZONTAL



MID CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL DATA

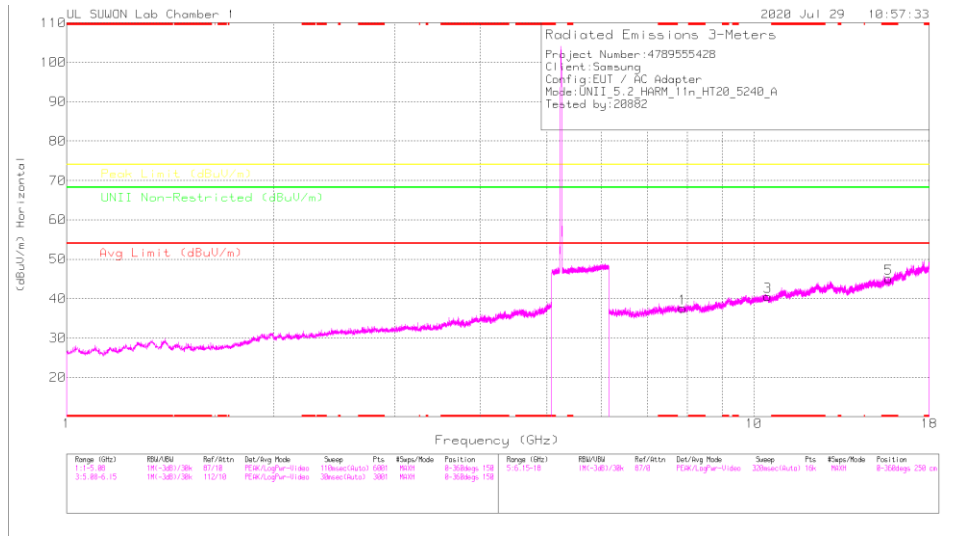
Radiated Emissions

Frequency (GHz)	Power (dBm)	Det	UL17_0028857	ISM_HF(50)	DC Corr (dB)	Combined Power (dBm)	Avg Limit (dBm)	Margin (dB)	Peak Limit (dBm)	Margin (dB)	UNII Non-Restricted (dBm)	Margin (dB)	Admsh (dBm)	Height (cm)	Power
7.79831	35.96	PK-U	36.1	-23.8	0	48.26	-	-	-	-	68.2	-19.94	360	100	H
7.79166	36.21	PK-U	36.1	-23.7	0	48.61	-	-	-	-	68.2	-19.59	360	100	V
10.42346	33.57	PK-U	37.5	-20.6	0	50.47	-	-	-	-	68.2	-17.73	360	100	H
10.42831	33.16	PK-U	37.5	-20.6	0	50.06	-	-	-	-	68.2	-18.14	360	100	V
* 15.60553	34.46	PK-U	40.4	-19.6	0	55.26	-	-	74	-18.74	-	-	360	100	H
* 15.60328	34.39	PK-U	40.4	-19.6	0	55.19	-	-	74	-18.81	-	-	360	100	V

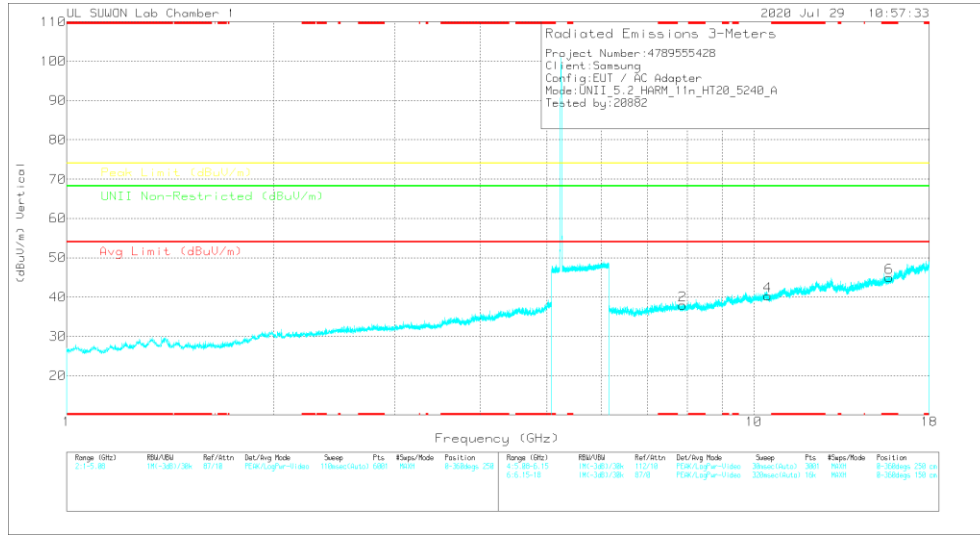
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

PK-U - U-NII: Maximum Peak

HIGH CHANNEL HORIZONTAL



HIGH CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

HIGH CHANNEL DATA

Radiated Emissions

Frequency (GHz)	Meas Reading (dBm)	Det	317_00168717	60Hz_HF(95)	DC Corr (dB)	Consolidated Reading (dBm)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted (dBuV/m)	Margin (dB)	Altitude (m)	Height (m)	Polarity
7.87891	38.53	PK-U	36	-26.5	0	48.03	-	-	-	-	68.2	-20.17	360	100	H
7.87952	38.82	PK-U	36	-26.5	0	48.32	-	-	-	-	68.2	-19.88	360	100	V
10.4801	35.13	PK-U	37.7	-22.4	0	50.43	-	-	-	-	68.2	-17.77	360	100	H
10.47782	35.58	PK-U	37.7	-22.4	0	50.88	-	-	-	-	68.2	-17.32	360	100	V
* 15.72188	37.22	PK-U	40.4	-21	0	56.62	-	-	74	-17.38	-	-	360	100	H
* 15.72141	36.43	PK-U	40.4	-21.1	0	55.73	-	-	74	-18.27	-	-	360	100	V

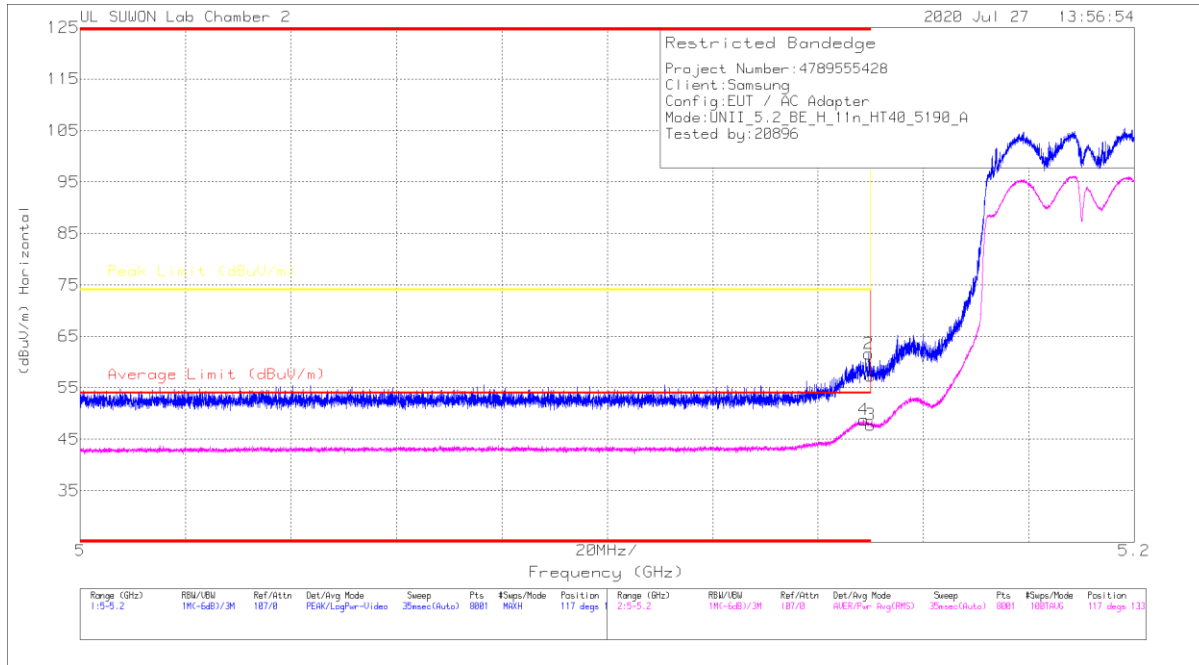
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

PK-U - U-NII: Maximum Peak

11.1.3. TX ABOVE 1GHz 802.11n HT40 2Tx MODE IN THE 5.2GHz BAND

RESTRICTED BANDEDGE (LOW CHANNEL)

HORIZONTAL PEAK AND AVERAGE DATA



Trace Markers

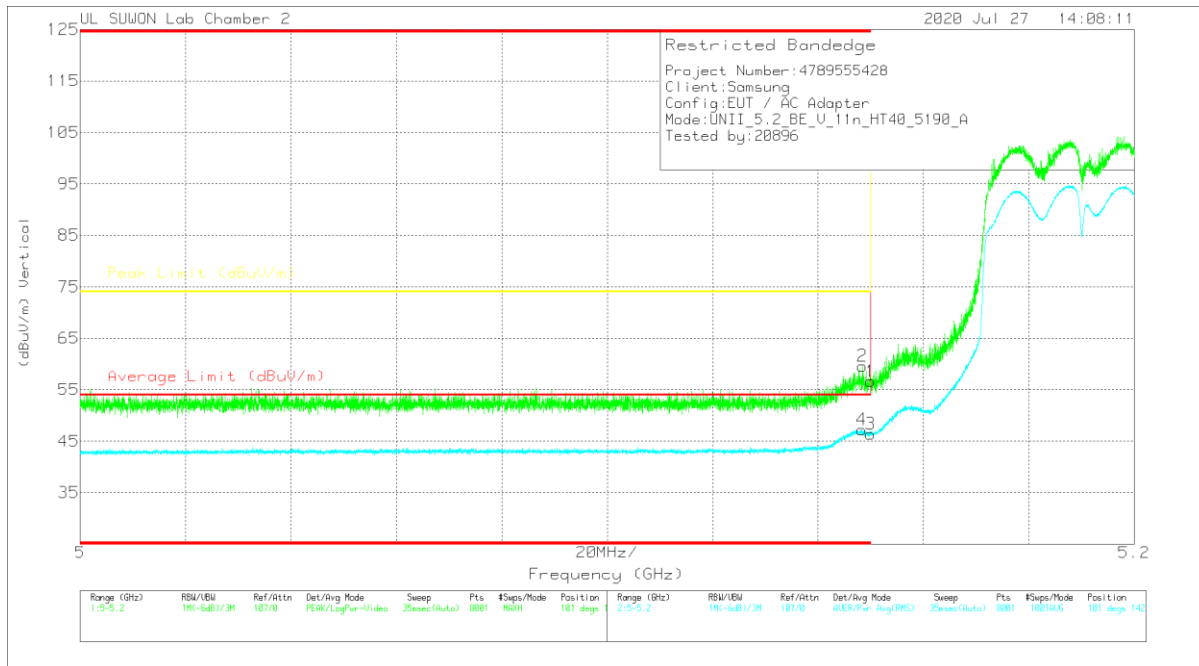
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00218957	10dB_ATT[dB]	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Altitude (Dops)	Height (cm)	Polarity
1	5.15	40.91	Pk	34.5	-18.1	0	57.31	-	-	74	-16.69	117	133	H
2	* 5.14963	45.21	Pk	34.5	-18.1	0	61.61	-	-	74	-12.39	117	133	H
3	5.15	31.38	RMS	34.5	-18.1	0	47.78	54	-6.22	-	-	117	133	H
4	* 5.14963	32.37	RMS	34.5	-18.1	0	48.77	54	-5.23	-	-	117	133	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

VERTICAL PEAK AND AVERAGE DATA



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00218957	10dB_ATT[dB]	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.15	40.23	Pk	34.5	-18.1	0	56.63	-	-	74	-17.37	101	142	V
2	* 5.14843	43.19	Pk	34.5	-18.1	0	59.59	-	-	74	-14.41	101	142	V
3	5.15	30	RMS	34.5	-18.1	0	46.4	54	-7.6	-	-	101	142	V
4	* 5.14825	30.85	RMS	34.5	-18.1	0	47.25	54	-6.75	-	-	101	142	V

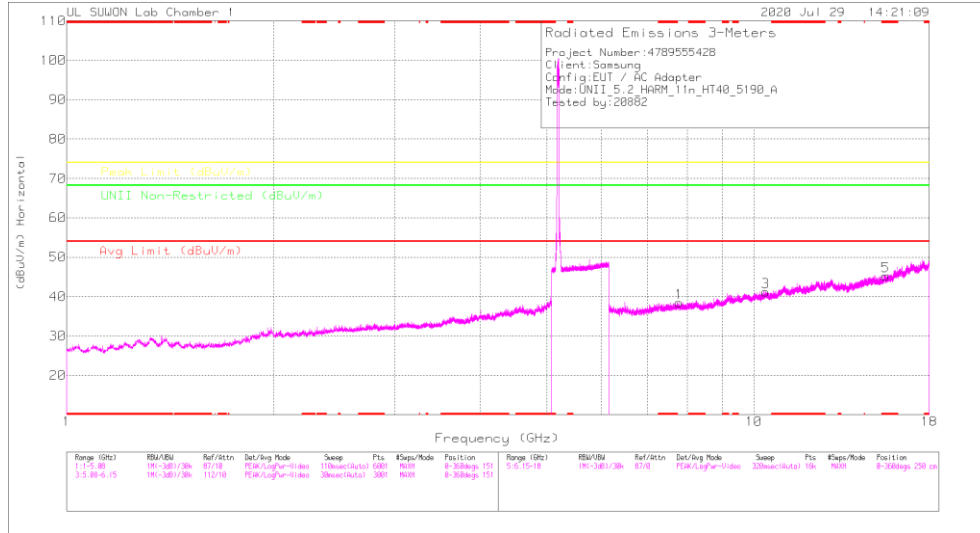
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

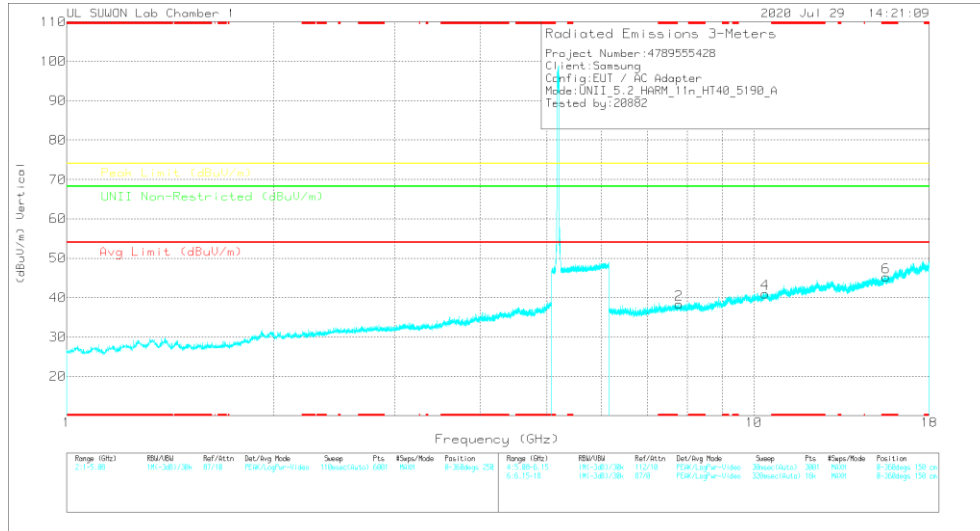
RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



LOW CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL DATA

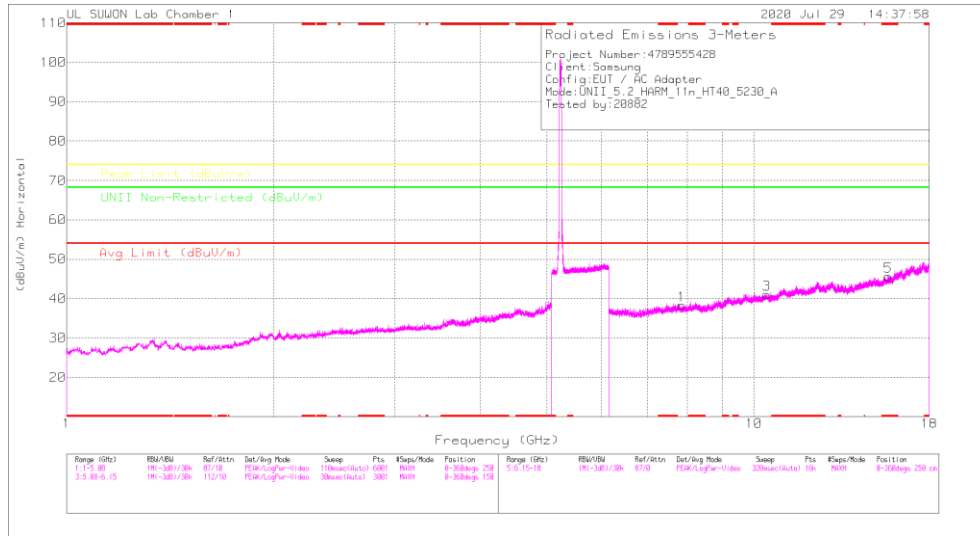
Radiated Emissions

Frequency (GHz)	Meas Reading (dBm)	Det	317_00360717	6GHz HPBW	DC Cor (dB)	Corrected Reading (dBm)	Avg Limit (dBUV/m)	Margin (dB)	Peak Limit (dBUV/m)	Margin (dB)	UNII Non-Restricted (dBUV/m)	Margin (dB)	Altitude (m)	Height (m)	Polarity
7.78451	-39.27	PK-U	35.9	-26.5	0	-40.57	-	-	-	-	68.2	-19.53	360	100	H
7.78363	-39.91	PK-U	35.9	-26.6	0	-40.21	-	-	-	-	68.2	-19.99	360	100	V
10.40213	-35.01	PK-U	37.6	-21.6	0	-51.01	-	-	-	-	68.2	-17.19	360	100	H
10.39911	-35.06	PK-U	37.6	-21.6	0	-51.06	-	-	-	-	68.2	-17.14	360	100	V
* 15.54879	-36.06	PK-U	40.2	-21	0	-55.26	-	-	74	-18.74	-	-	360	100	H
* 15.55013	-36.64	PK-U	40.2	-21	0	-55.84	-	-	74	-18.16	-	-	360	100	V

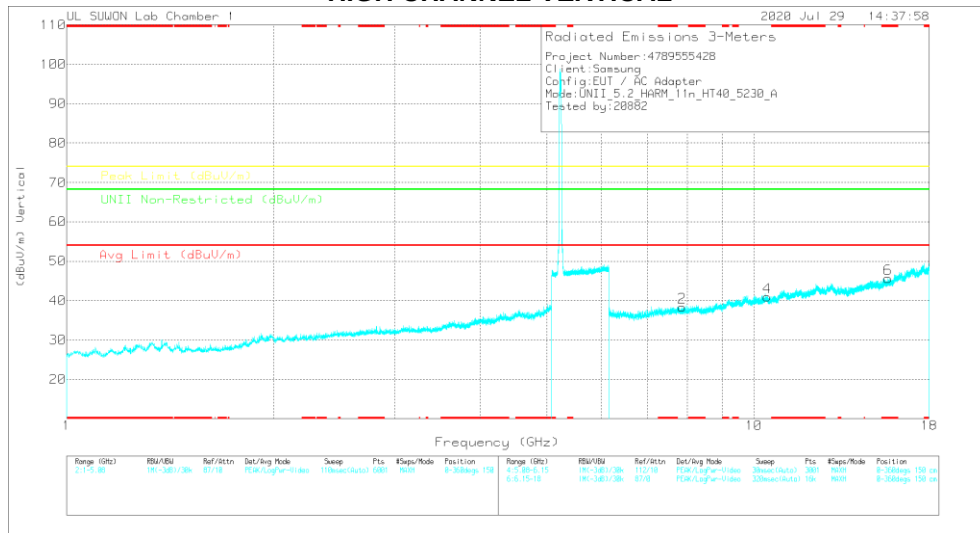
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

PK-U - U-NII: Maximum Peak

HIGH CHANNEL HORIZONTAL



HIGH CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

HIGH CHANNEL DATA

Radiated Emissions

Frequency (GHz)	Major Reading (dBm)	Det	317_0036717	6GHz HPFSB	DC Cor (dB)	Corrected Reading (dBm)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted (dBuV/m)	Margin (dB)	Altitude (m)	Height (m)	Polarity
7.84775	35.5	PK-U	35.9	-26.6	0	49.3	-	-	-	-	68.2	-19.4	360	100	H
7.84597	35.42	PK-U	35.9	-26.6	0	49.72	-	-	-	-	68.2	-19.48	360	100	V
10.44678	35.82	PK-U	37.7	-22.1	0	51.42	-	-	-	-	68.2	-16.78	360	100	H
10.44534	35.32	PK-U	37.7	-22.1	0	50.92	-	-	-	-	68.2	-17.28	360	100	V
* 15.68389	36.43	PK-U	40.3	-21.1	0	55.63	-	-	74	-18.37	-	-	360	100	H
* 15.68243	36.29	PK-U	40.3	-21.1	0	55.49	-	-	74	-18.51	-	-	360	100	V

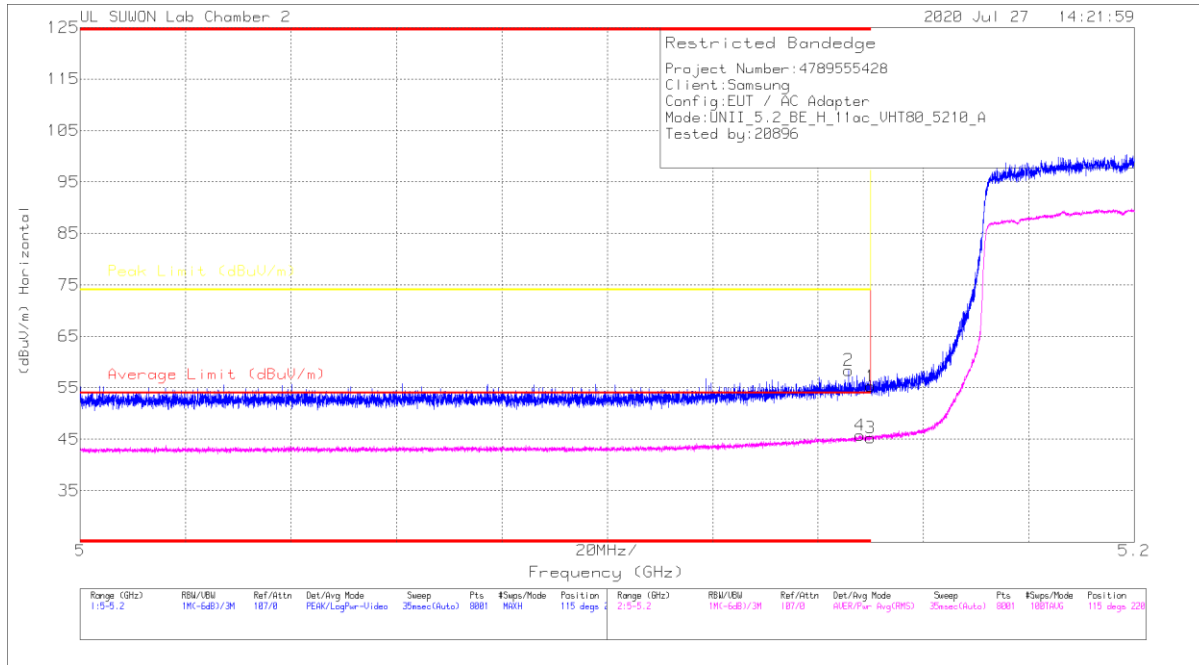
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

PK-U - U-NII: Maximum Peak

11.1.4.TX ABOVE 1GHz 802.11ac VHT80 2Tx MODE IN THE 5.2GHz BAND

RESTRICTED BANDEDGE (LOW CHANNEL)

HORIZONTAL PEAK AND AVERAGE DATA



Trace Markers

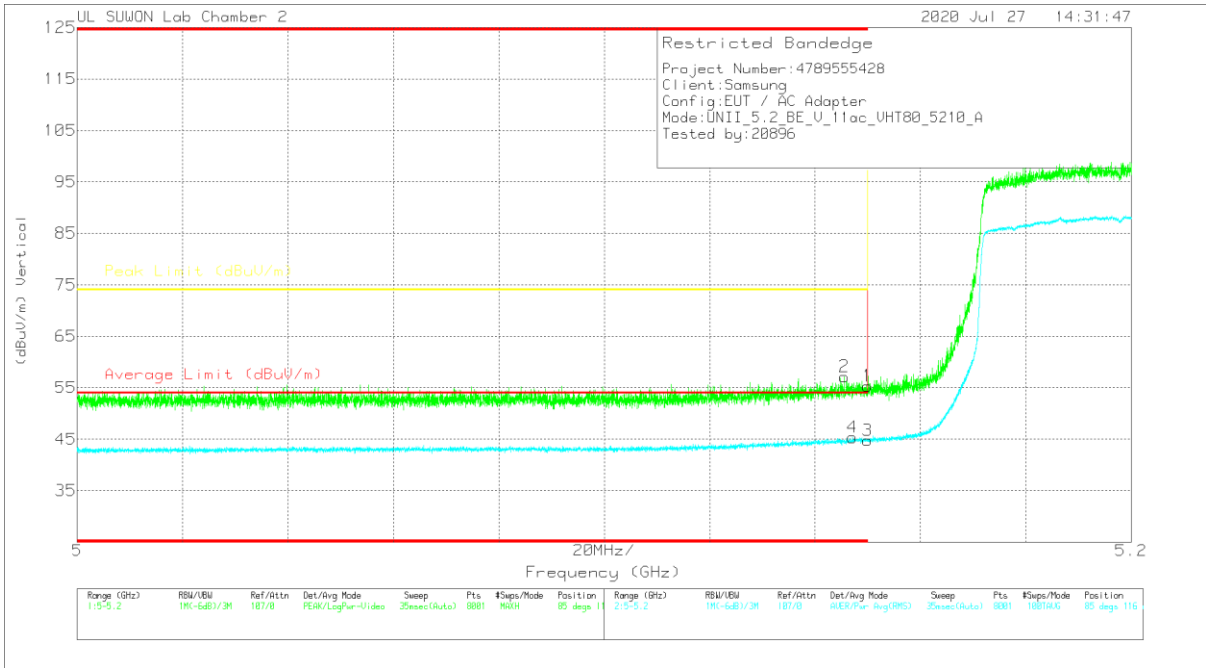
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_50218957	10dB_ATT[dB]	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Pk Margin (dB)	Altitude (m)	Height (cm)	Polarity
1	5.15	38.9	Pk	34.5	-18.1	0	55.3	-	-	74	-18.7	115	220	H
2	* 5.14575	42.07	Pk	34.5	-18.2	0	58.37	-	-	74	-15.63	115	220	H
3	5.15	28.87	RMS	34.5	-18.1	0	45.27	54	-8.73	-	-	115	220	H
4	* 5.14795	29.36	RMS	34.5	-18.1	0	45.76	54	-8.24	-	-	115	220	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

VERTICAL PEAK AND AVERAGE DATA



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00218957	10dB_ATT[dB]	DC Cor (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Altitude (Degs)	Height (cm)	Polarity
1	5.15	38.92	Pk		-18.1	0	55.32	-	-	74	-18.68	85	116	V
2	* 5.14558	40.86	Pk		-18.2	0	57.16	-	-	74	-16.84	85	116	V
3	5.15	28.36	RMS		-18.1	0	44.76	54	-9.24	-	-	85	116	V
4	* 5.1471	28.96	RMS		-18.1	0	45.36	54	-8.64	-	-	85	116	V

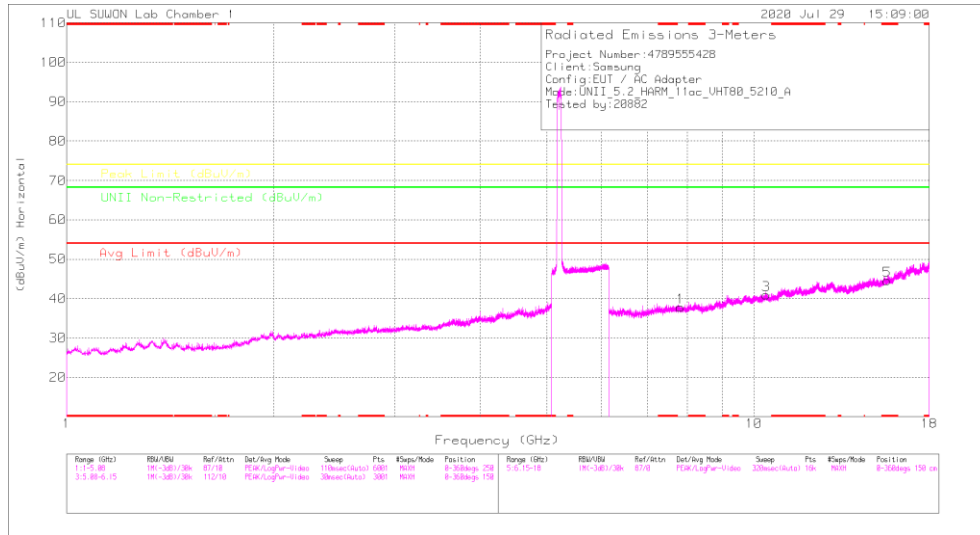
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

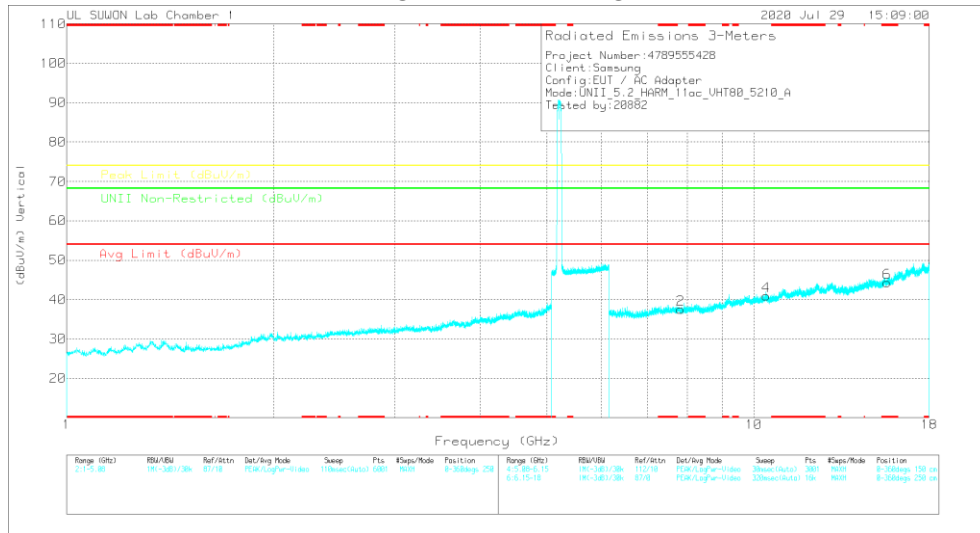
RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS

MID CHANNEL HORIZONTAL



MID CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL DATA

Radiated Emissions

Frequency (GHz)	Meas. Reading (dBuV)	Det	3117_00368717	60Hz_HF[dB]	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted (dBuV/m)	Margin (dB)	Altitude (Feet)	Height (m)	Polarity
7.81708	38.84	PK-U	35.9	-26.5	0	49.24	-	-	-	-	68.2	-19.96	360	100	H
7.8142	39.2	PK-U	35.9	-26.5	0	47.6	-	-	-	-	68.2	-20.6	360	100	V
10.45913	35.87	PK-U	37.7	-22.1	0	51.47	-	-	-	-	68.2	-16.73	360	100	H
10.41804	35.73	PK-U	37.6	-21.8	0	51.53	-	-	-	-	68.2	-16.67	360	100	V
* 15.69023	36.56	PK-U	40.4	-21.3	0	55.66	-	-	74	-18.34	-	-	360	100	H
* 15.69023	36.39	PK-U	40.4	-21.3	0	55.49	-	-	74	-18.51	-	-	360	100	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

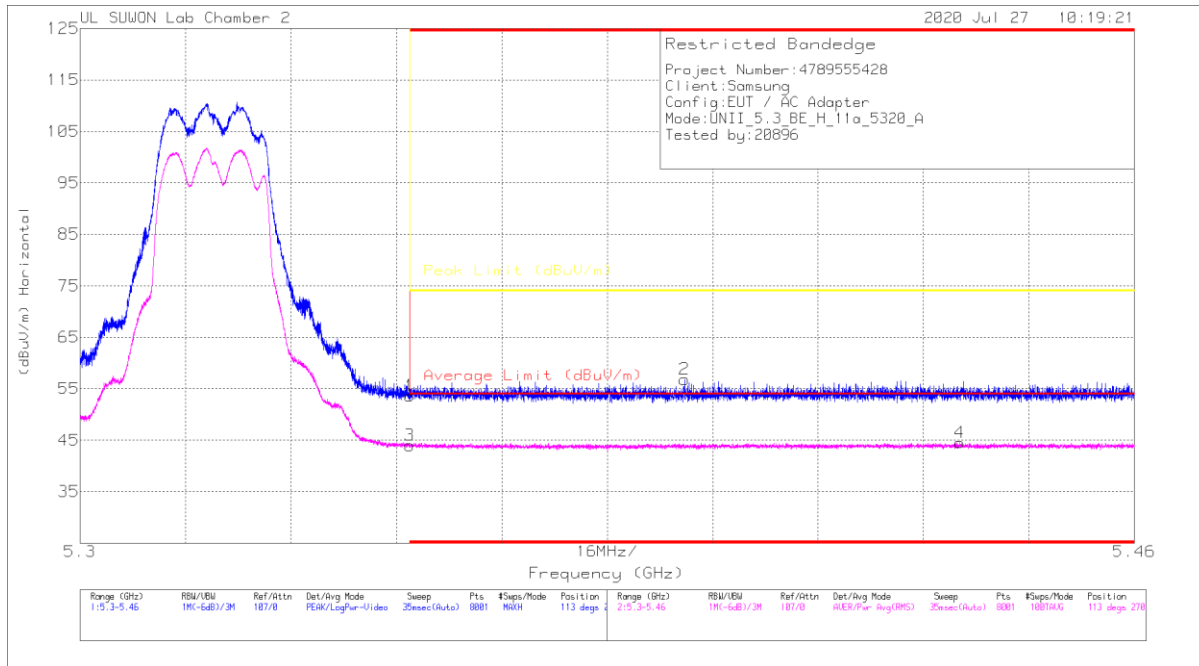
PK-U - U-NII: Maximum Peak

11.2. 5.3 GHz

11.2.1. TX ABOVE 1 GHz 802.11a 2Tx MODE IN THE 5.3 GHz BAND

RESTRICTED BANDEDGE (HIGH CHANNEL)

HORIZONTAL PEAK AND AVERAGE DATA



Trace Markers

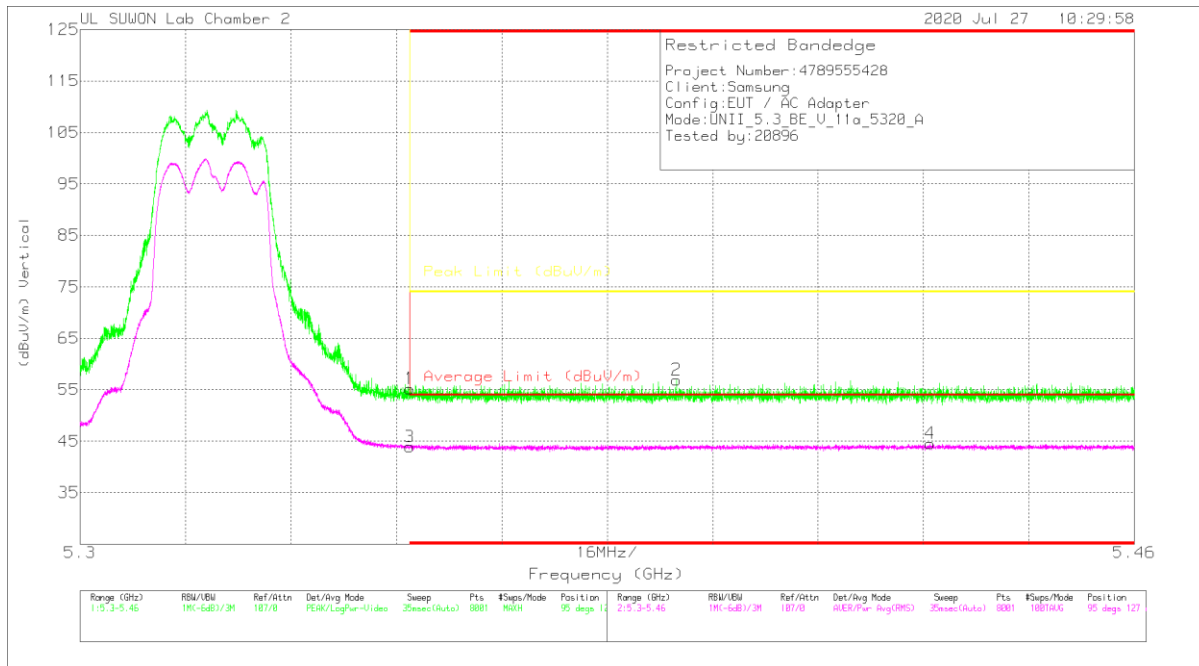
Marker	Frequency (GHz)	Meter Reading (dBUV)	Det	3117_00218957	10dB_ATT[dB]	DC Corr (dB)	Corrected Reading (dBUV/m)	Average Limit (dBUV/m)	Margin (dB)	Peak Limit (dBUV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35002	36.79	Pk	34.9	-18.1	0	53.59	-	-	74	-20.41	113	270	H
2	* 5.39172	40.03	Pk	35	-18.2	0	56.83	-	-	74	-17.17	113	270	H
3	* 5.35002	27.21	RMS	34.9	-18.1	0	44.01	54	-9.99	-	-	113	270	H
4	* 5.43348	27.64	RMS	35	-18.1	0	44.54	54	-9.46	-	-	113	270	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

VERTICAL PEAK AND AVERAGE DATA



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00218957	10dB_ATT[dB]	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Altitude (feet)	Height (m)	Polarity
1	* 5.35002	38.41	PK	34.9	-18.1	0	56.51	-	-	74	-18.79	95	127	V
2	* 5.39064	40.1	PK	35	-18.2	0	56.9	-	-	74	-17.1	95	127	V
3	* 5.35002	27.12	RMS	34.9	-18.1	0	43.92	54	-10.08	-	-	95	127	V
4	* 5.429	27.66	RMS	35	-18.1	0	44.56	54	-9.44	-	-	95	127	V

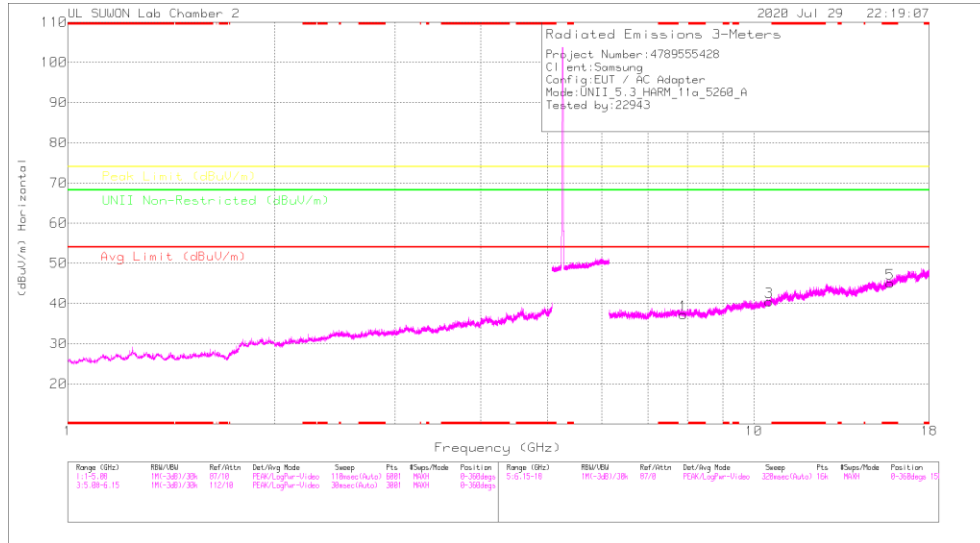
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

PK - Peak detector

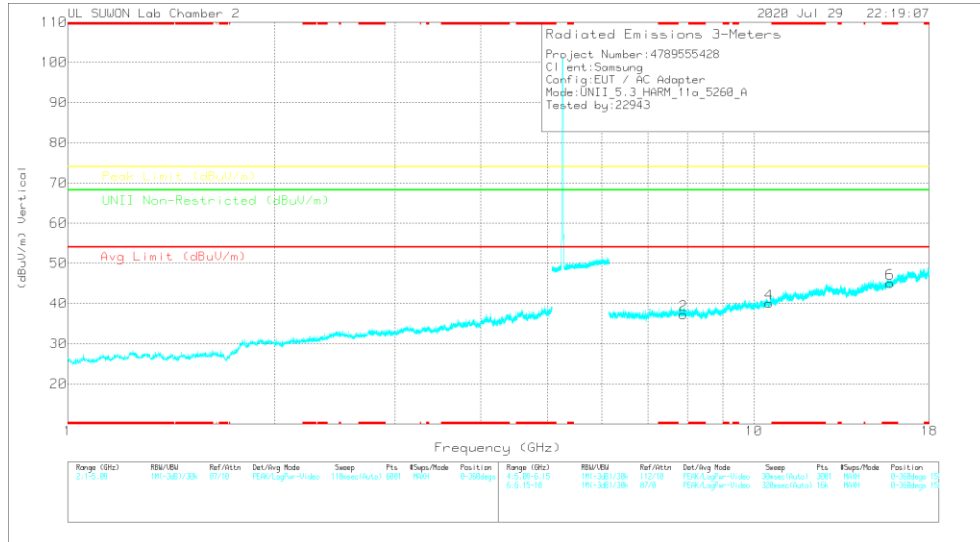
RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



LOW CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL DATA

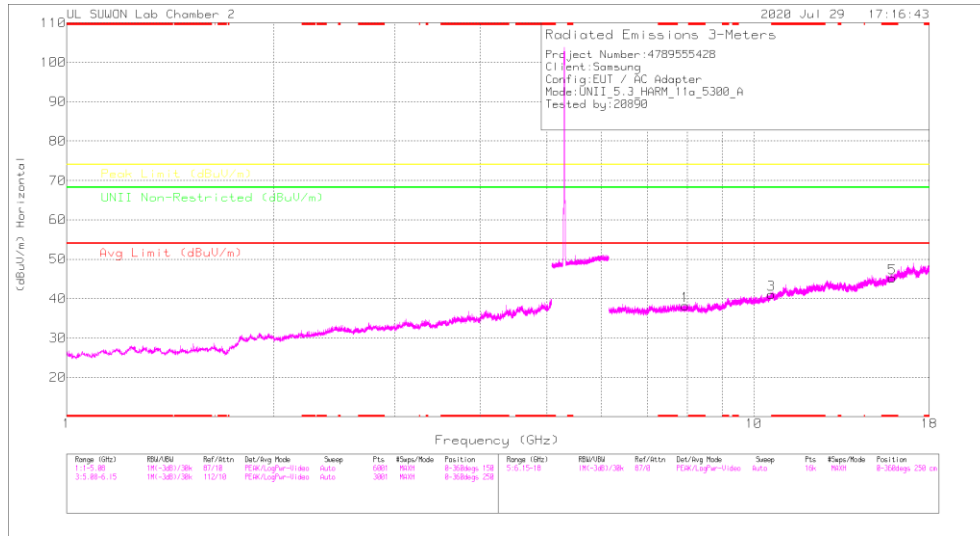
Radiated Emissions

Frequency (GHz)	Meas Reading (dBuV)	Det	317_0021867	6GHz_HFSS	DC Cor (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted (dBuV/m)	Margin (dB)	Altitude (m)	Height (m)	Polarity
7.89079	36.95	PK-U	36.1	-24.1	0	48.95	-	-	-	-	68.2	-19.25	0	100	H
7.8891	36.42	PK-U	36.1	-24.2	0	48.32	-	-	-	-	68.2	-19.88	0	100	V
10.51917	33.37	PK-U	37.6	-20.4	0	50.57	-	-	-	-	68.2	-17.63	0	100	H
10.52063	33.92	PK-U	37.6	-20.4	0	51.12	-	-	-	-	68.2	-17.08	0	100	V
* 15.78031	35.04	PK-U	40.7	-19.9	0	55.84	-	-	74	-18.16	-	-	0	100	H
* 15.78033	35.5	PK-U	40.7	-19.9	0	56.3	-	-	74	-17.7	-	-	0	100	V

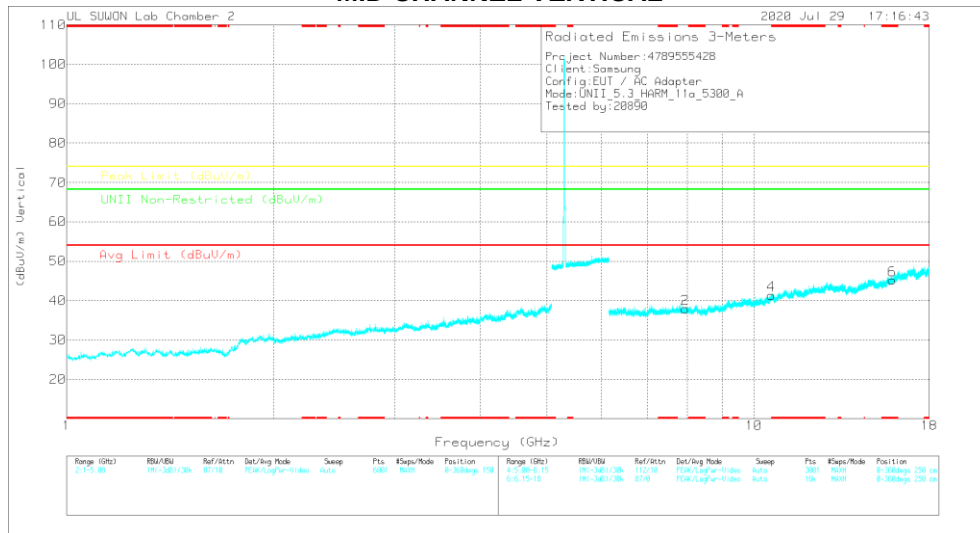
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

PK-U - U-NII: Maximum Peak

MID CHANNEL HORIZONTAL



MID CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL DATA

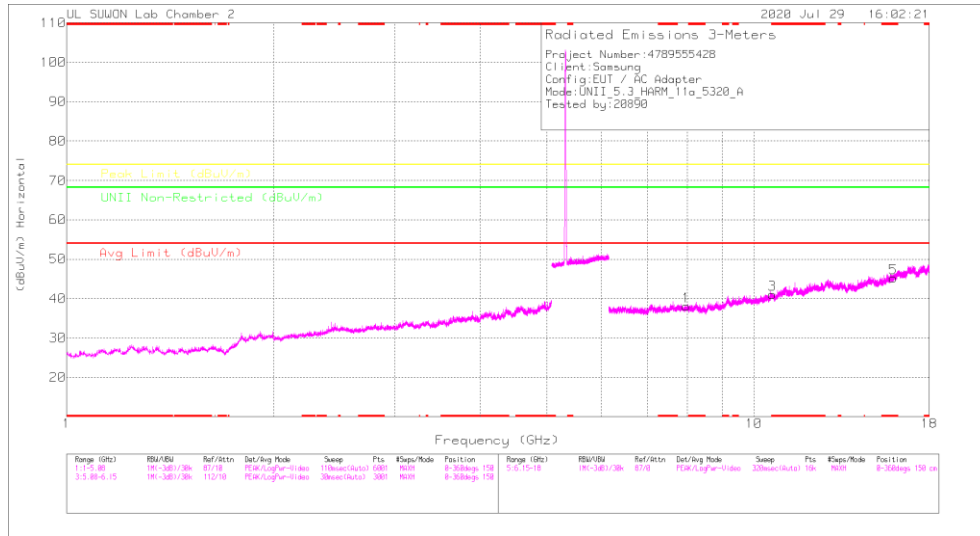
Radiated Emissions

Frequency (GHz)	Meas Reading (dBuV)	Det	317_00218957	60Hz_HF(98)	DC Cor (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted (dBuV/m)	Margin (dB)	Altitude (m)	Height (m)	Polarity
7.94928	36.21	PK-U	36.1	-23.6	0	49.71	-	-	-	-	68.2	-19.49	0	100	H
7.95123	36.46	PK-U	36.1	-23.7	0	49.86	-	-	-	-	68.2	-19.34	0	100	V
* 10.61389	32.71	PK-U	37.7	-19.2	0	51.21	-	-	74	-22.79	-	-	0	100	H
* 10.60822	33.01	PK-U	37.7	-19.2	0	51.51	-	-	74	-22.49	-	-	0	100	V
* 15.89609	33.92	PK-U	40.8	-19.5	0	55.22	-	-	74	-18.78	-	-	0	100	H
* 15.89919	34.65	PK-U	40.8	-19.5	0	55.95	-	-	74	-18.05	-	-	0	100	V

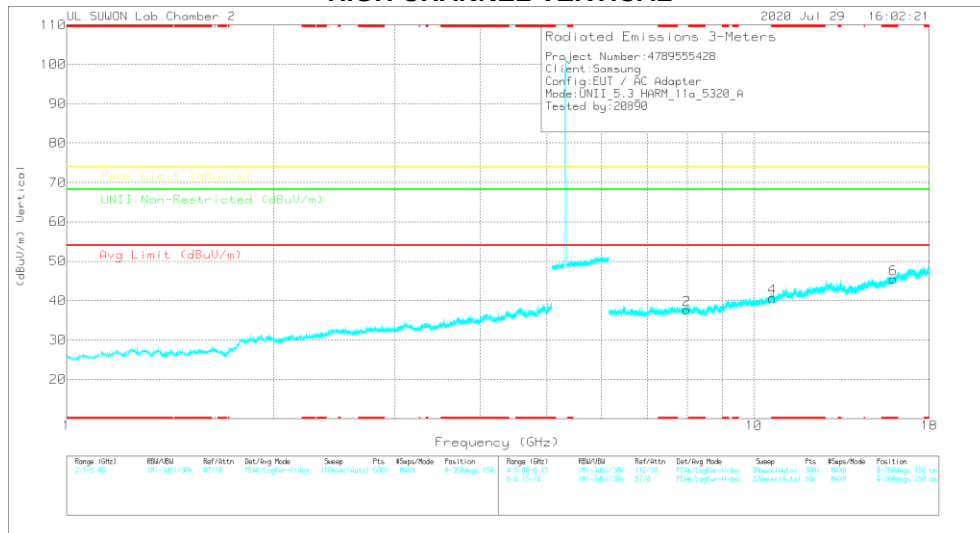
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

PK-U - U-NII: Maximum Peak

HIGH CHANNEL HORIZONTAL



HIGH CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

HIGH CHANNEL DATA

Radiated Emissions

Frequency (GHz)	Meas Reading (dBuV)	Det	317_0021857	6GHz_HF(dB)	DC Cor (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted (dBuV/m)	Margin (dB)	Actual (dBm)	Height (cm)	Polarity
7.97006	36.21	PK-U	36.1	-23.7	0	48.61	-	-	-	-	68.2	-19.59	360	100	H
7.98409	36.26	PK-U	36.1	-23.7	0	48.66	-	-	-	-	68.2	-19.54	360	100	V
* 10.64475	33.33	PK-U	37.7	-19.5	0	51.53	-	-	74	-22.47	-	-	360	100	H
* 10.64204	33.39	PK-U	37.7	-19.4	0	51.69	-	-	74	-22.31	-	-	360	100	V
* 15.9654	34.46	PK-U	40.9	-19.5	0	55.86	-	-	74	-18.14	-	-	360	100	H
* 15.95419	34.39	PK-U	40.9	-19.4	0	55.89	-	-	74	-18.11	-	-	360	100	V

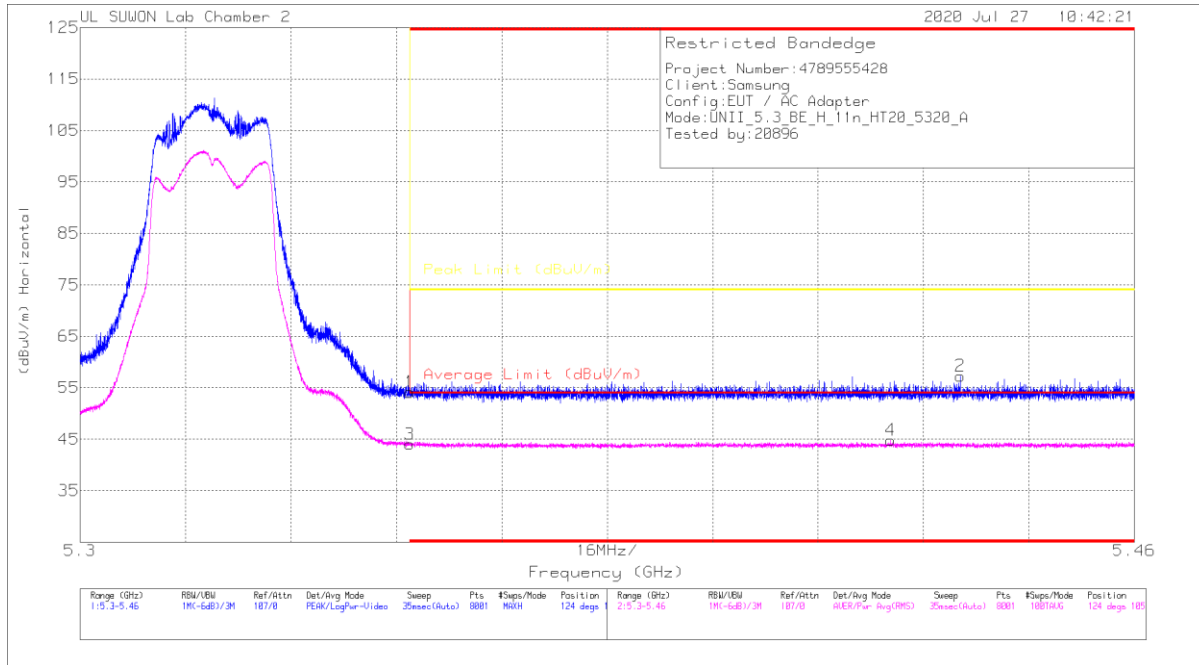
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

PK-U - U-NII: Maximum Peak

11.2.2.TX ABOVE 1GHz 802.11n HT20 2Tx MODE IN THE 5.3GHz BAND

RESTRICTED BANDEDGE (HIGH CHANNEL)

HORIZONTAL PEAK AND AVERAGE DATA



Trace Markers

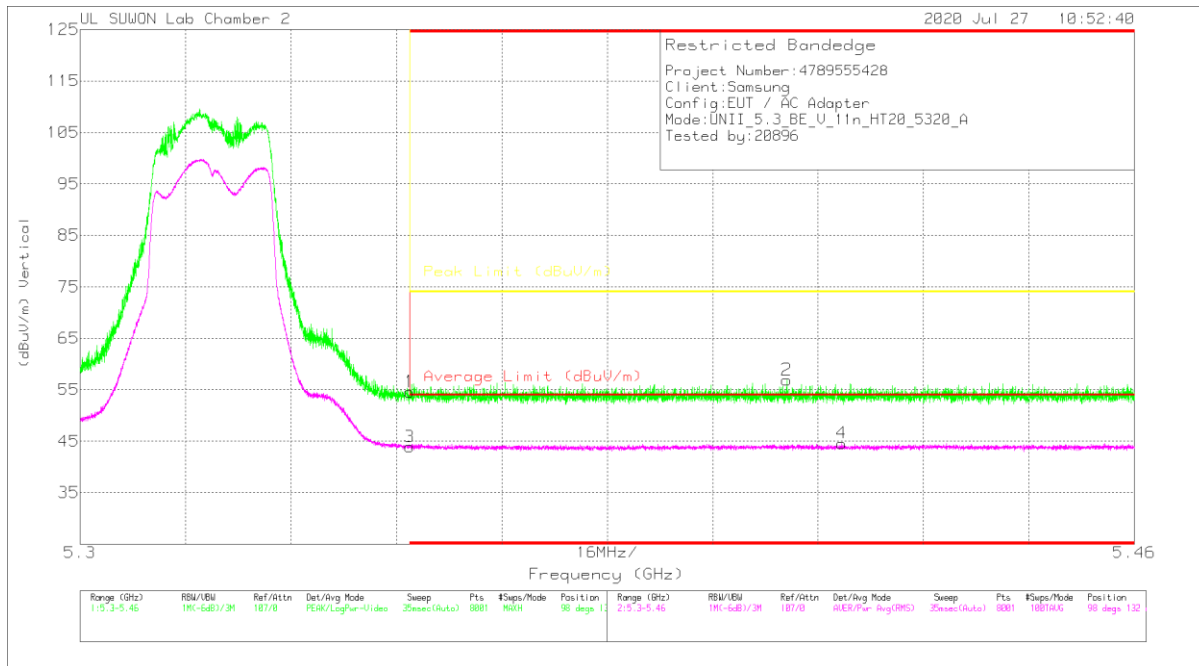
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00218957	10dB_ATT[dB]	DC Cor (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Acimuth (Degs)	Height (cm)	Polarity
1	* 5.35002	37.34	Pk	34.9	-18.1	0	54.14	-	-	74	-19.86	124	105	H
2	* 5.4336	40.38	Pk	35	-18.1	0	57.28	-	-	74	-16.72	124	105	H
3	* 5.35002	27.25	RMS	34.9	-18.1	0	44.05	54	-9.95	-	-	124	105	H
4	* 5.423	28.01	RMS	35	-18.2	0	44.81	54	-9.19	-	-	124	105	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

VERTICAL PEAK AND AVERAGE DATA



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00218957	10dB_ATT[dB]	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Altitude (Degs)	Height (cm)	Polarity
1	* 5.35002	37.8	PK	34.9	-18.1	0	54.6	-	-	74	-19.4	98	132	V
2	* 5.40724	40	PK	35	-18.1	0	56.9	-	-	74	-17.1	98	132	V
3	* 5.35002	27.11	RMS	34.9	-18.1	0	43.91	54	-10.09	-	-	98	132	V
4	* 5.4156	27.79	RMS	35	-18.2	0	44.59	54	-9.41	-	-	98	132	V

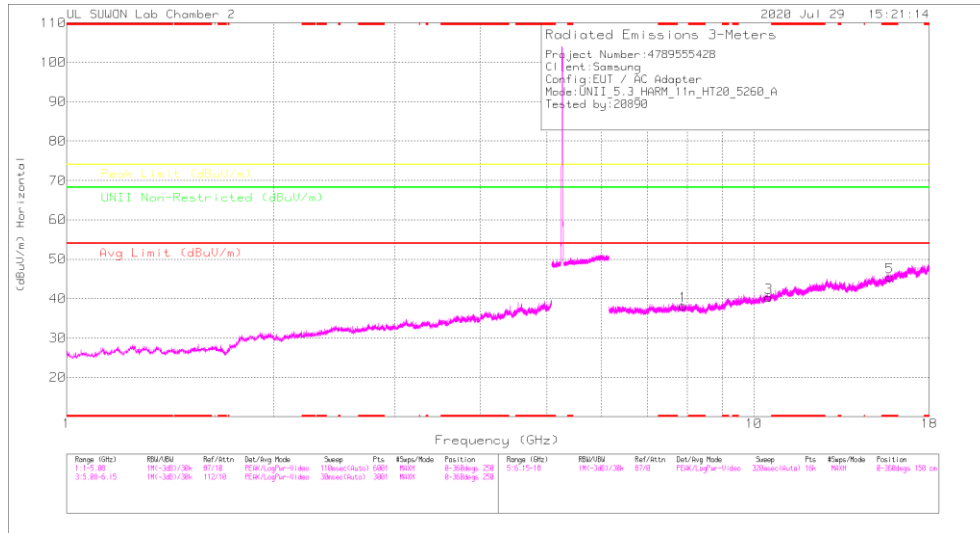
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

PK - Peak detector

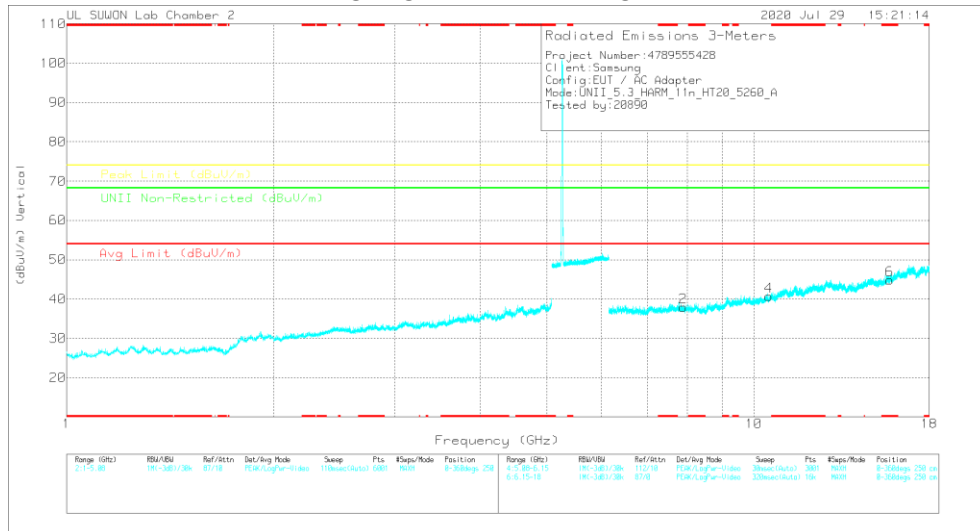
RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



LOW CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL DATA

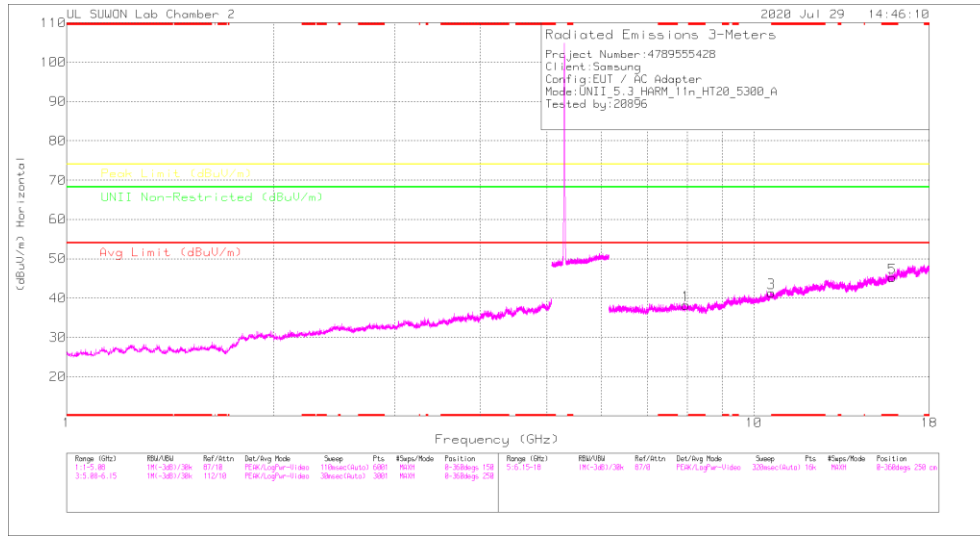
Radiated Emissions

Frequency (GHz)	Meas Reading (dBuV)	Det	3117_00218957	60Hz_HF[58]	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted (dBuV/m)	Margin (dB)	Altitude (ft)	Height (cm)	Polarity
7.9001	36.61	PK-U	36.1	-24.1	0	49.61	-	-	-	-	68.2	-19.59	360	100	H
7.89736	37.65	PK-U	36.1	-24.1	0	49.65	-	-	-	-	68.2	-18.55	360	100	V
10.52668	33.58	PK-U	37.6	-20.3	0	50.88	-	-	-	-	68.2	-17.32	360	100	H
10.5294	33.42	PK-U	37.6	-20.3	0	50.72	-	-	-	-	68.2	-17.48	360	100	V
* 15.78663	34.74	PK-U	40.7	-20	0	55.44	-	-	74	-18.56	-	-	360	100	H
* 15.77408	34.86	PK-U	40.7	-19.8	0	55.76	-	-	74	-18.24	-	-	360	100	V

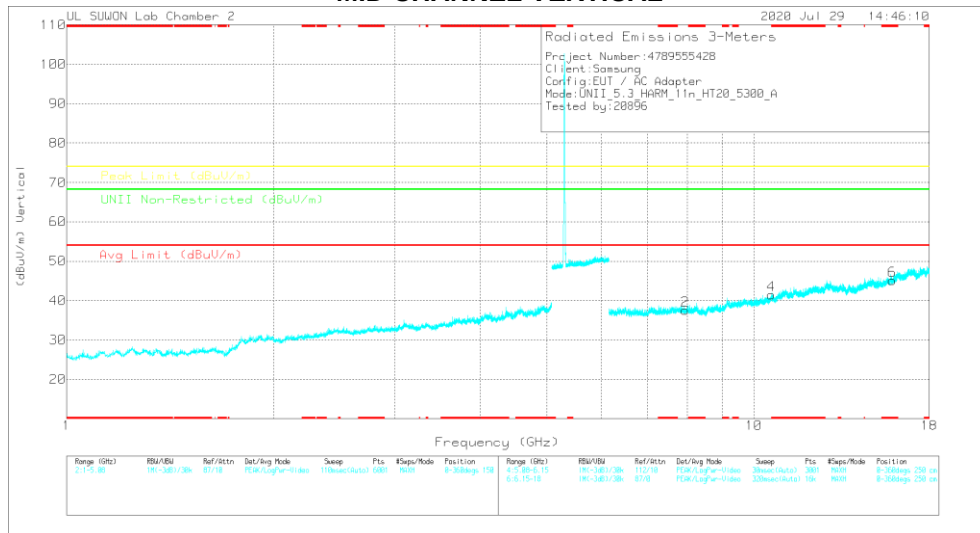
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

PK-U - U-NII: Maximum Peak

MID CHANNEL HORIZONTAL



MID CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL DATA

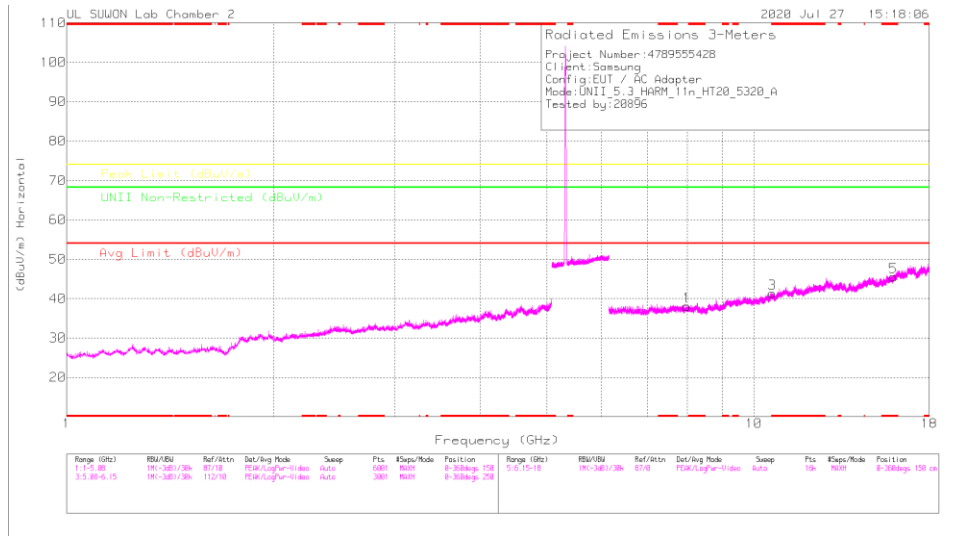
Radiated Emissions

Frequency (GHz)	Meas Reading (dBuV)	Det	3137_0020057	@GHz_HF@dB	OC Cor (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted (dBuV/m)	Margin (dB)	Altitude (m)	Height (m)	Priority
7.95503	35.63	PK-U	36.1	-23.6	0	48.13	-	-	-	-	68.2	-20.07	360	100	H
7.96645	36.38	PK-U	36.1	-23.7	0	48.78	-	-	-	-	68.2	-19.42	360	100	V
*10.62697	33.33	PK-U	37.7	-19.4	0	51.63	-	-	74	-22.37	-	-	360	100	H
*10.60884	33.02	PK-U	37.7	-19.2	0	51.52	-	-	74	-22.48	-	-	360	100	V
*15.89218	34.33	PK-U	40.8	-19.5	0	55.63	-	-	74	-18.37	-	-	360	100	H
*15.9055	35.38	PK-U	40.8	-19.4	0	56.78	-	-	74	-17.22	-	-	360	100	V

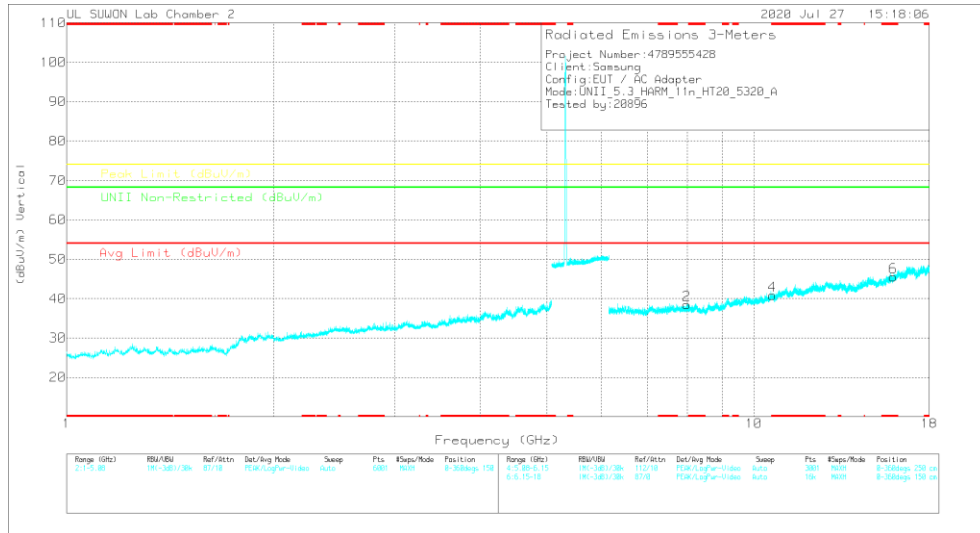
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

PK-U - U-NII: Maximum Peak

HIGH CHANNEL HORIZONTAL



HIGH CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

HIGH CHANNEL DATA

Radiated Emissions

Frequency (GHz)	Meas Reading (dBuV)	Det	317_0028957	60Hz_HFp(dB)	DC Cor (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Unii Non-Restricted (dBuV/m)	Margin (dB)	Altitude (Degs)	Height (cm)	Polarity
7.97671	36.02	PK-U	36.1	-23.7	0	48.42	-	-	-	-	68.2	-19.78	360	100	H
7.97277	35.7	PK-U	36.1	-23.6	0	48.2	-	-	-	-	68.2	-20	360	100	V
*10.64331	33.1	PK-U	37.7	-19.4	0	51.4	-	-	74	-22.6	-	-	360	100	H
*10.63362	32.74	PK-U	37.7	-19.4	0	51.04	-	-	74	-22.96	-	-	360	100	V
*15.97158	34.04	PK-U	40.9	-19.6	0	55.34	-	-	74	-18.66	-	-	360	100	H
*15.95754	33.98	PK-U	40.9	-19.5	0	55.38	-	-	74	-18.62	-	-	360	100	V

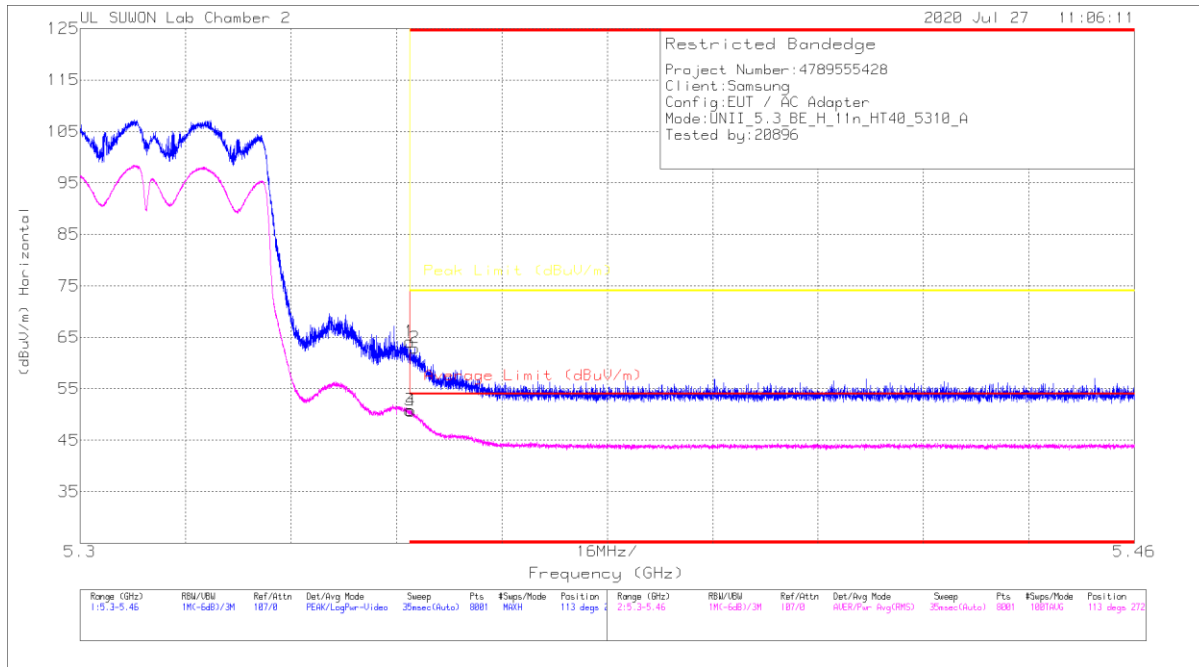
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

PK-U - U-NII: Maximum Peak

11.2.3. TX ABOVE 1GHz 802.11n HT40 2Tx MODE IN THE 5.3GHz BAND

RESTRICTED BANDEDGE (HIGH CHANNEL)

HORIZONTAL PEAK AND AVERAGE DATA



Trace Markers

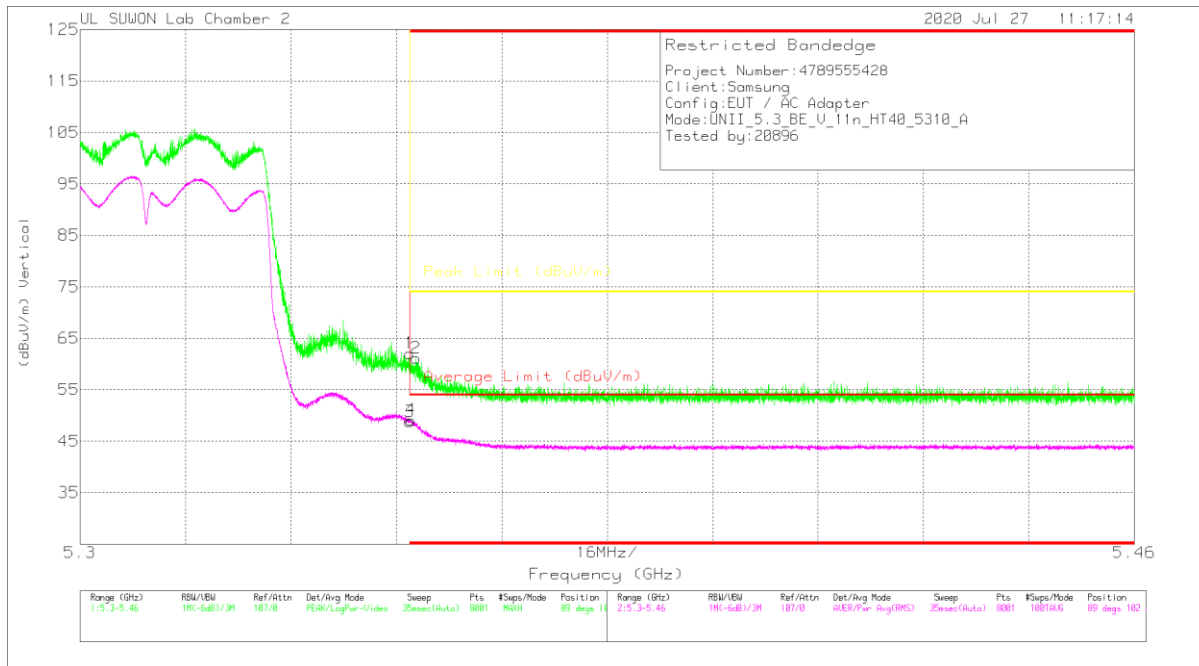
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00218957	10dB_ATT[dB]	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Pk Margin (dB)	Altitude (Degs)	Height (cm)	Polarity
1	* 5.35002	47.37	Pk	34.9	-18.1	0	64.17	-	-	74	-9.83	113	272	H
2	* 5.35076	46.14	Pk	34.9	-18.1	0	62.94	-	-	74	-11.06	113	272	H
3	* 5.35002	34.05	RMS	34.9	-18.1	0	50.85	54	-3.15	-	-	113	272	H
4	* 5.35018	33.93	RMS	34.9	-18.1	0	50.73	54	-3.27	-	-	113	272	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

VERTICAL PEAK AND AVERAGE DATA



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00218957	10dB_ATT[dB]	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Pk Margin (dB)	Asimuth (Degs)	Height (cm)	Polarity
1	* 5.35002	45.28	Pk	34.9	-18.1	0	62.08	-	-	74	-11.92	89	102	V
2	* 5.35094	44.36	Pk	34.9	-18.1	0	61.16	-	-	74	-12.84	89	102	V
3	* 5.35002	32	RMS	34.9	-18.1	0	48.8	54	-5.2	-	-	89	102	V
4	* 5.35018	32.3	RMS	34.9	-18.1	0	49.1	54	-4.9	-	-	89	102	V

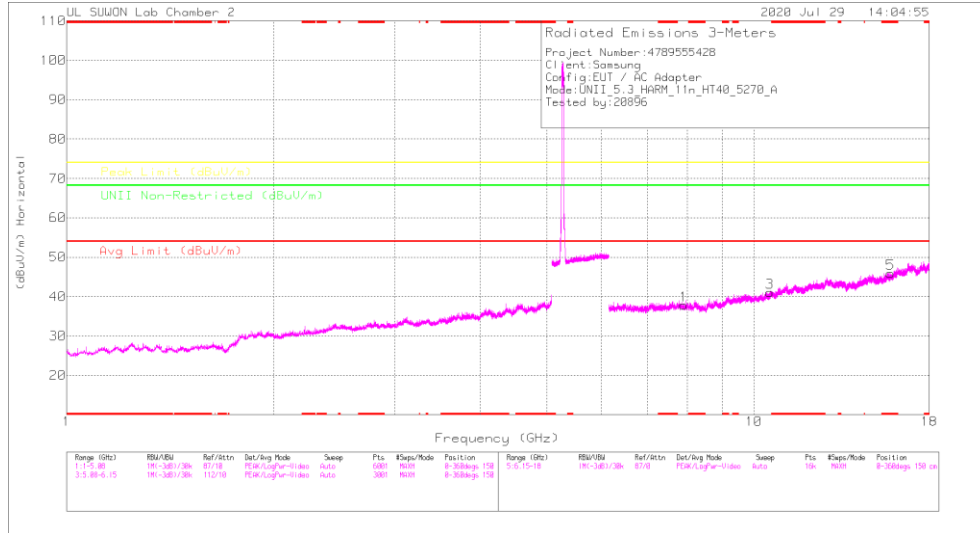
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

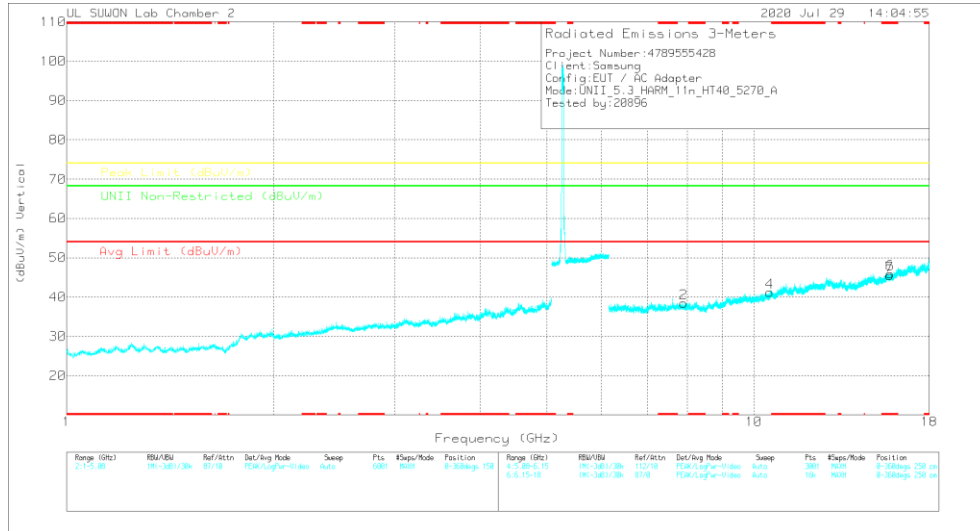
RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



LOW CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL DATA

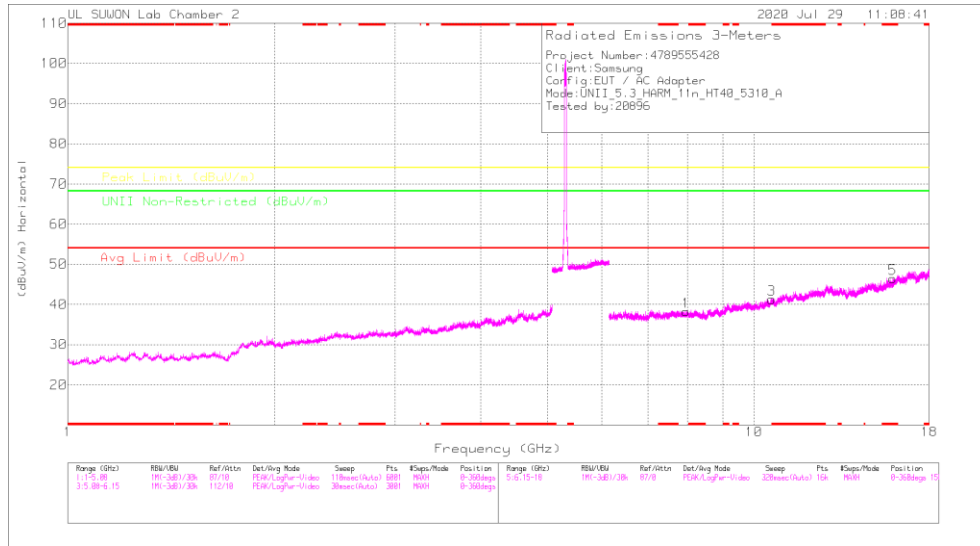
Radiated Emissions

Frequency (GHz)	Meas Reading (dBuV)	Det	3117_00218957	6GHz_HF[68]	DC Corr (dB)	Corrected Reading (dBuV)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted (dBuV/m)	Margin (dB)	Antenna (dBi)	Height (m)	Polarity
7.90779	36.6	PK-U	36.1	-23.9	0	48.8	-	-	-	-	68.2	-19.4	360	100	H
7.89527	36.48	PK-U	36.1	-24.1	0	48.48	-	-	-	-	68.2	-19.72	360	100	V
10.53784	33.44	PK-U	37.6	-20.2	0	50.84	-	-	-	-	68.2	-17.36	360	100	H
10.53407	32.87	PK-U	37.6	-20.3	0	50.17	-	-	-	-	68.2	-18.03	360	100	V
* 15.81725	34.47	PK-U	40.7	-19.7	0	55.47	-	-	74	-18.53	-	-	360	100	H
* 15.80969	34.43	PK-U	40.7	-19.8	0	55.33	-	-	74	-18.67	-	-	360	100	V

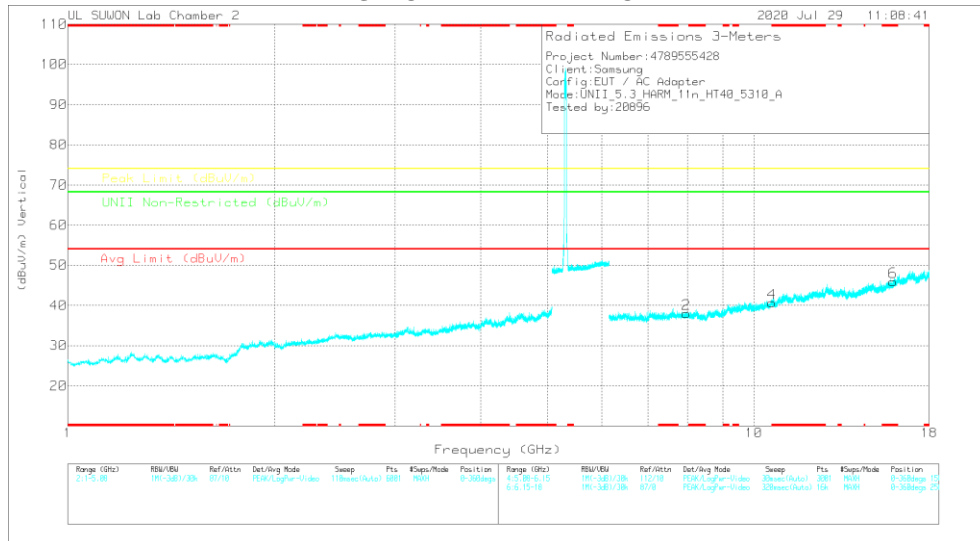
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

PK-U - U-NII: Maximum Peak

HIGH CHANNEL HORIZONTAL



HIGH CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

HIGH CHANNEL DATA

Radiated Emissions

Frequency (GHz)	Mean Reading (dBuV)	Det	317_00218657	6GHz_HPS[B]	DC Corr (dB)	Combined Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted (dBuV/m)	Margin (dB)	Altitude (m)	Height (m)	Polarity
7.96913	36.13	PK-U	36.1	-23.7	0	48.53	-	-	-	-	68.2	-19.67	360	100	H
7.95352	36.75	PK-U	36.1	-23.6	0	49.25	-	-	-	-	68.2	-18.95	360	100	V
* 10.61097	33	PK-U	37.7	-19.2	0	51.5	-	-	74	-22.5	-	-	360	100	H
* 10.61232	33.69	PK-U	37.7	-19.3	0	52.09	-	-	74	-21.91	-	-	360	100	V
* 15.93833	34.15	PK-U	40.9	-19.4	0	55.65	-	-	74	-18.35	-	-	360	100	H
* 15.93991	34.82	PK-U	40.9	-19.4	0	56.32	-	-	74	-17.68	-	-	360	100	V

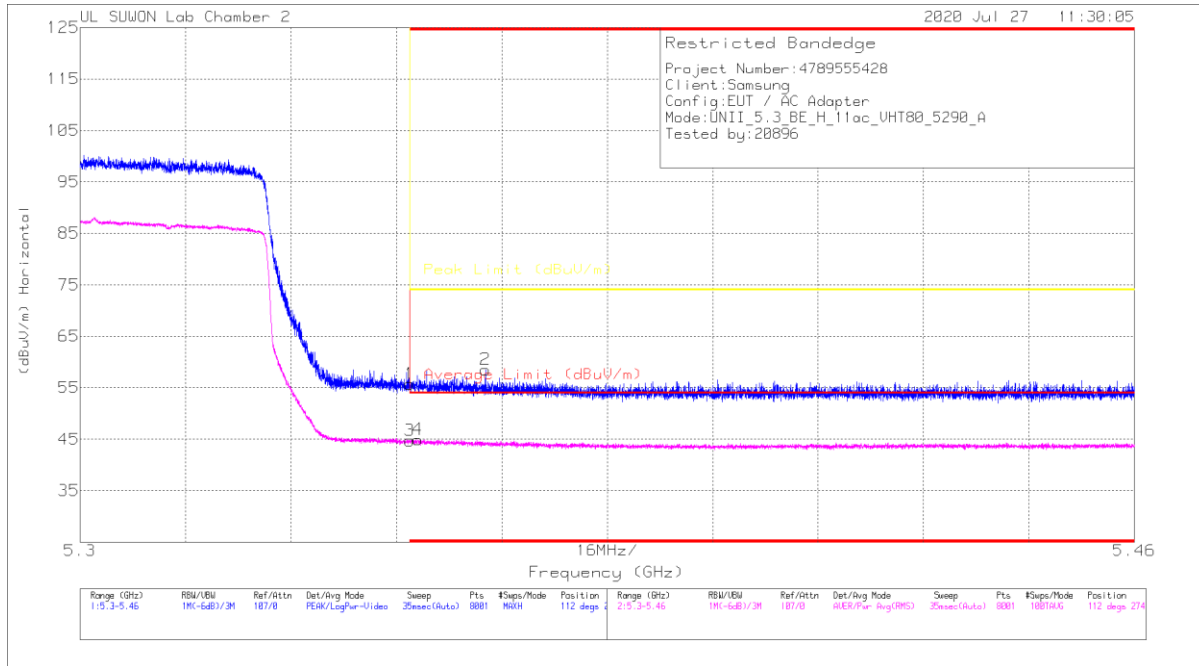
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

PK-U - U-NII: Maximum Peak

11.2.4. TX ABOVE 1GHz 802.11ac VHT80 2Tx MODE IN THE 5.3GHz BAND

RESTRICTED BANDEDGE (High CHANNEL)

HORIZONTAL PEAK AND AVERAGE DATA



Trace Markers

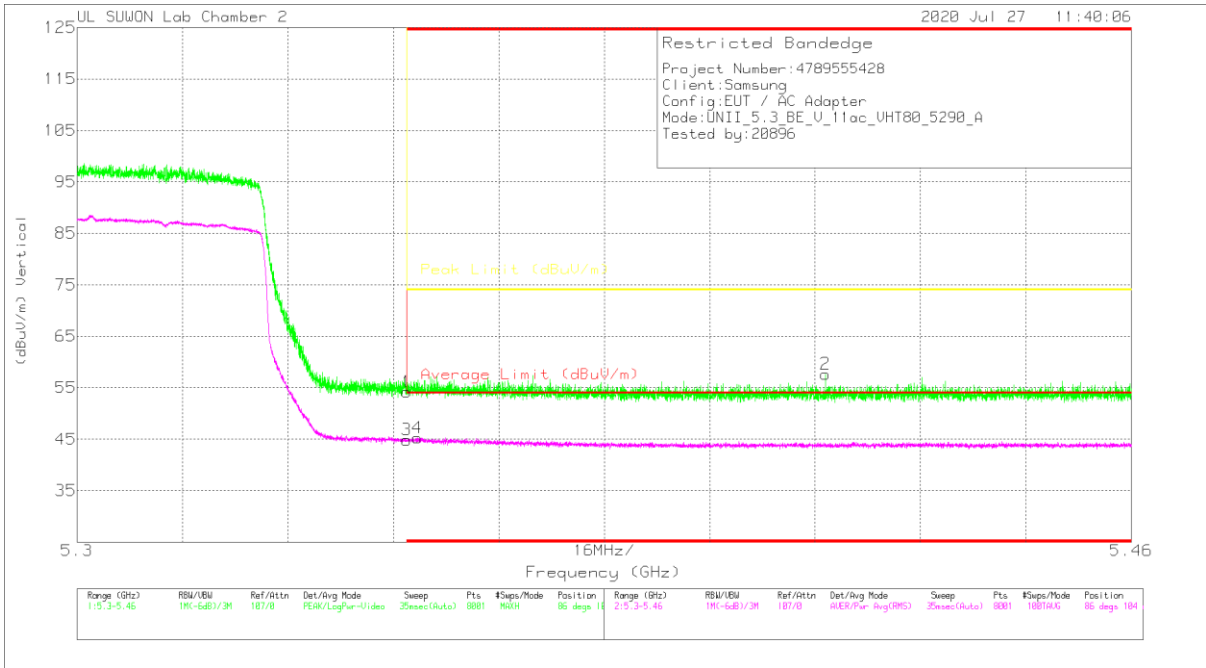
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_50218957	10dB_ATT(dB)	DC Cor (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35002	38.95	PK	34.9	-18.1	0	55.75	-	-	74	-18.25	112	274	H
2	* 5.3615	41.84	PK	34.9	-18.2	0	58.54	-	-	74	-15.46	112	274	H
3	* 5.35002	27.93	RMS	34.9	-18.1	0	44.73	54	-9.27	-	-	112	274	H
4	* 5.35128	28.14	RMS	34.9	-18.1	0	44.94	54	-9.06	-	-	112	274	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

PK - Peak detector

RMS - RMS detection

VERTICAL PEAK AND AVERAGE DATA



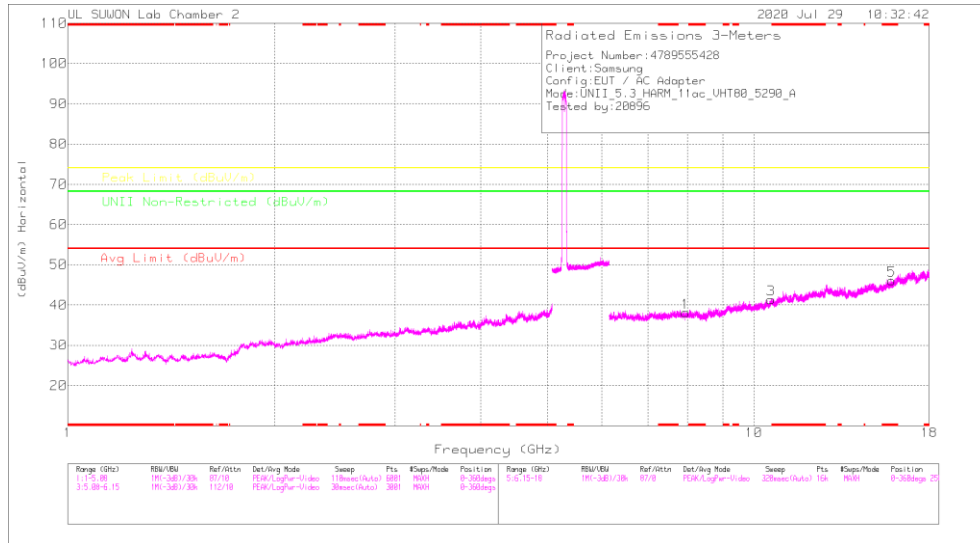
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00218957	10dB_ATT[dB]	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.35002	37.39	Pk	34.9	-18.1	0	54.19	-	-	74	-19.81	86	104	V
2	* 5.4136	40.85	Pk	35	-18.2	0	57.65	-	-	74	-16.35	86	104	V
3	* 5.35002	28.05	RMS	34.9	-18.1	0	44.85	54	-9.15	-	-	86	104	V
4	* 5.35162	28.45	RMS	34.9	-18.1	0	45.25	54	-8.75	-	-	86	104	V

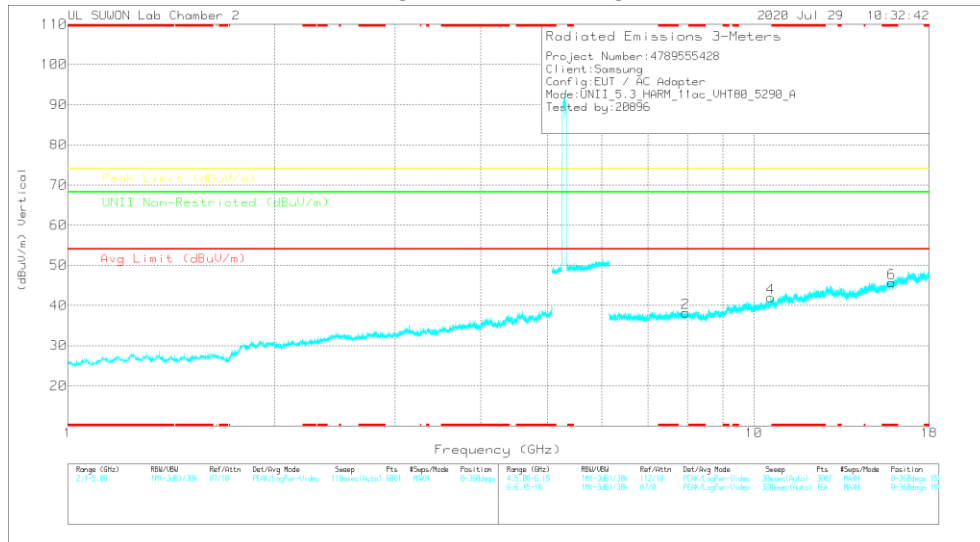
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
Pk - Peak detector
RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS

MID CHANNEL HORIZONTAL



MID CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL DATA

Radiated Emissions

Frequency (GHz)	Meas. Reading (dBm)	Det	317_00218957	6GHz_HF99B	DC Cor (dB)	Corrected Reading (dBm)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted (dBuV/m)	Margin (dB)	Altitude (m)	Height (m)	Polarity
7.9511	36.12	PK-U	36.1	-23.6	0	40.52	-	-	-	-	68.2	-19.58	360	100	H
7.95091	36.38	PK-U	36.1	-23.6	0	40.58	-	-	-	-	68.2	-19.32	360	100	V
10.57846	33.17	PK-U	37.7	-19.5	0	51.37	-	-	-	-	68.2	-16.83	360	100	H
10.57878	33.23	PK-U	37.7	-19.5	0	51.43	-	-	-	-	68.2	-16.77	360	100	V
* 15.86548	34.83	PK-U	40.8	-19.7	0	55.93	-	-	74	-18.07	-	-	360	100	H
* 15.86448	34.88	PK-U	40.8	-19.7	0	55.98	-	-	74	-18.02	-	-	360	100	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

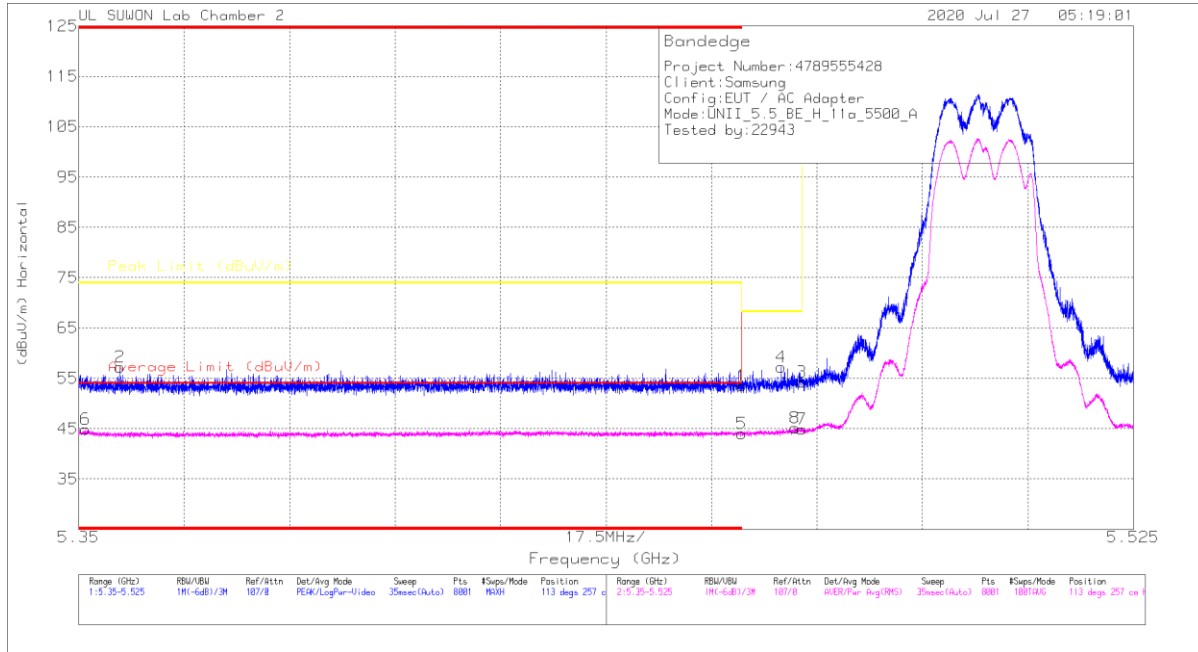
PK-U - U-NII: Maximum Peak

11.3. 5.5-5.6 GHz

11.3.1. TX ABOVE 1 GHz 802.11a 2Tx MODE IN THE 5.5 GHz BAND

RESTRICTED BANDEDGE (LOW CHANNEL)

HORIZONTAL PEAK AND AVERAGE DATA



Trace Markers

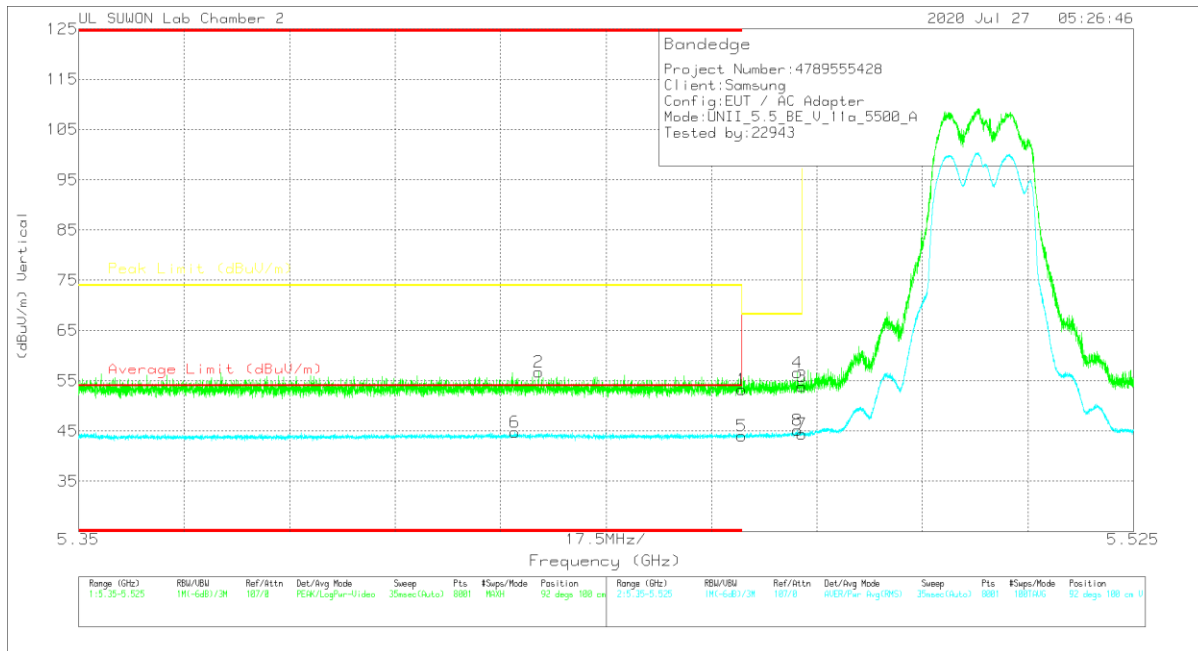
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_900218957	10dB_ATT[dB]	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.45999	36.54	Pk	35	-18.1	0	53.44	-	-	74	-20.56	113	257	H
2	* 5.35699	40.44	Pk	34.9	-18.1	0	57.24	-	-	74	-16.76	113	257	H
3	5.46998	37.38	Pk	35	-18.1	0	54.28	-	-	68.2	-13.92	113	257	H
4	5.46653	40.36	Pk	35	-18.1	0	57.26	-	-	68.2	-10.94	113	257	H
5	* 5.45999	27.17	RMS	35	-18.1	0	44.07	54	-9.93	-	-	113	257	H
6	* 5.35114	28.04	RMS	34.9	-18.1	0	44.84	54	-9.16	-	-	113	257	H
7	5.46998	27.94	RMS	35	-18.1	0	44.84	-	-	-	-	113	257	H
8	5.46887	28.2	RMS	35	-18.1	0	45.1	-	-	-	-	113	257	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

VERTICAL PEAK AND AVERAGE DATA



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_50218957	10dB_ATT[dB]	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.45999	36.39	Pk	35	-18.1	0	53.29	-	-	74	-20.71	92	100	V
2	* 5.42628	39.81	Pk	35	-18.1	0	56.71	-	-	74	-17.29	92	100	V
3	5.46998	37	Pk	35	-18.1	0	53.9	-	-	68.2	-14.3	92	100	V
4	5.46922	39.72	Pk	35	-18.1	0	56.62	-	-	68.2	-11.58	92	100	V
5	* 5.45999	27.11	RMS	35	-18.1	0	44.01	54	-9.99	-	-	92	100	V
6	* 5.42236	27.93	RMS	35	-18.2	0	44.73	54	-9.27	-	-	92	100	V
7	5.46998	27.45	RMS	35	-18.1	0	44.35	-	-	-	-	92	100	V
8	5.46928	28.19	RMS	35	-18.1	0	45.09	-	-	-	-	92	100	V

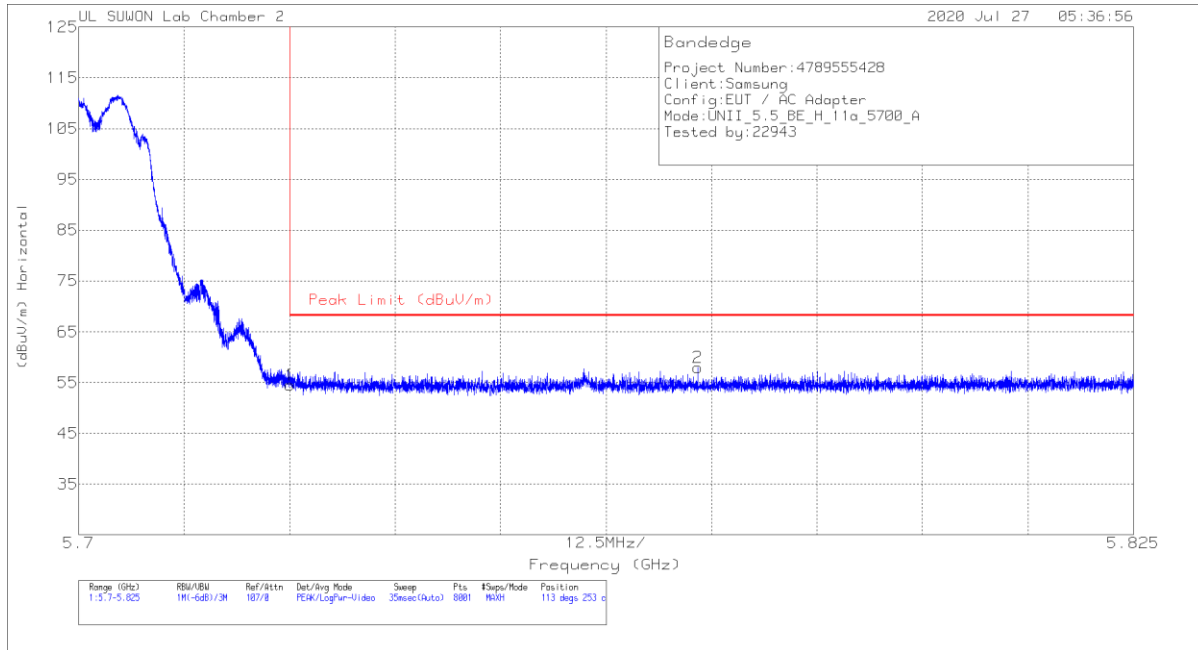
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

BANDEDGE (HIGH CHANNEL)

HORIZONTAL PEAK AND AVERAGE DATA

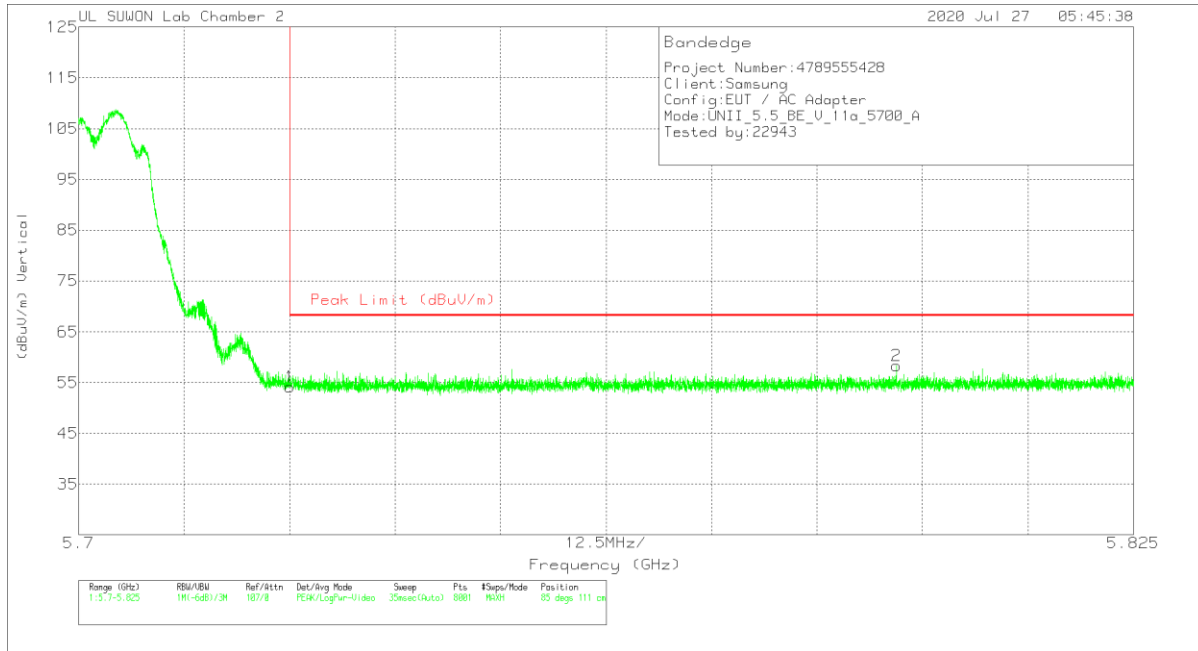


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00218957	10dB_ATT[dB]	DC Corr (dB)	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.72502	36.84	Pk	35.2	-17.5	0	54.54	68.2	-13.66	113	253	H
2	5.77336	40.13	Pk	35.3	-17.5	0	57.93	68.2	-10.27	113	253	H

Pk - Peak detector

VERTICAL PEAK AND AVERAGE DATA



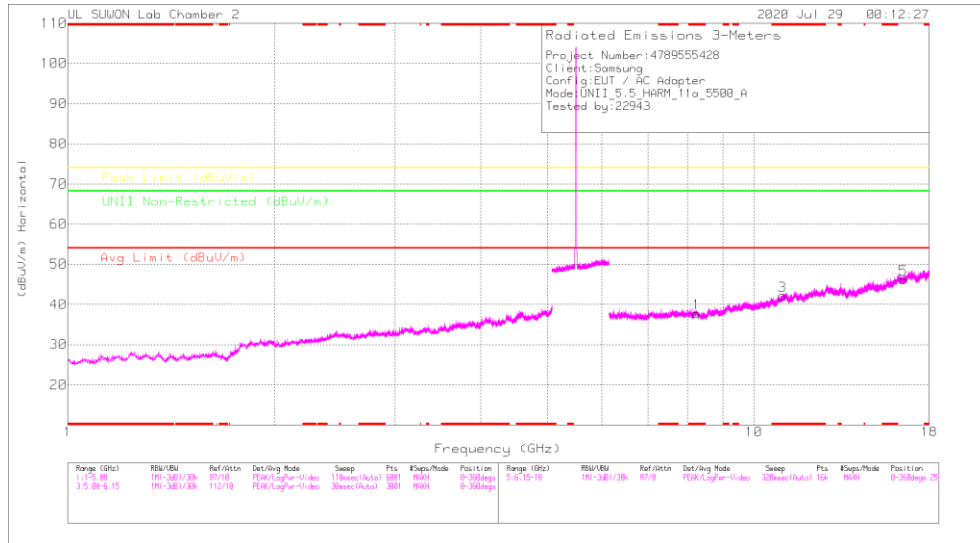
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00218957	10dB_ATT[dB]	DC Corr (dB)	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.72502	36.42	Pk	35.2	-17.5	0	54.12	68.2	-14.08	85	111	V
2	5.79689	40.29	Pk	35.4	-17.4	0	58.29	68.2	-9.91	85	111	V

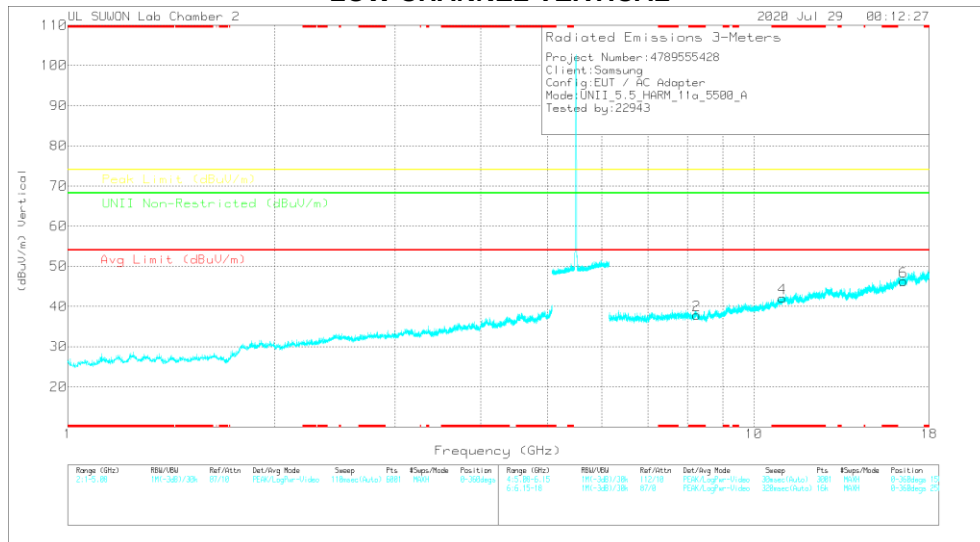
Pk - Peak detector

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



LOW CHANNEL VERTICAL



Note. Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL DATA

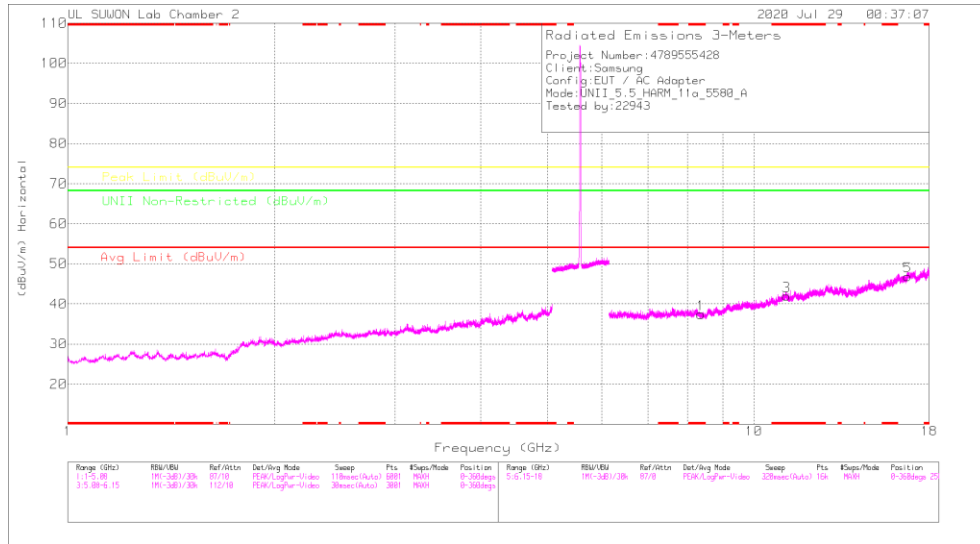
Radiated Emissions

Frequency (GHz)	Power Reading (dBm)	Det	3127_00218657	IS24_HF985	DC Corr (dB)	Corrected Reading (dBm)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted (dBuV/m)	Margin (dB)	Altitude (m)	Height (cm)	Polarity
* 8.24817	35.55	PK-U	36	-22.9	0	48.65	-	-	74	-25.35	-	-	360	100	H
* 9.24966	36.45	PK-U	36	-22.9	0	49.55	-	-	74	-24.45	-	-	360	100	V
* 11.00148	34.81	PK-U	38	-20.3	0	52.51	-	-	74	-21.49	-	-	360	100	H
* 10.99904	34.23	PK-U	38	-20.3	0	51.93	-	-	74	-22.07	-	-	360	100	V
16.49877	35.31	PK-U	41.6	-19.8	0	57.11	-	-	-	-	68.2	-11.09	360	100	H
16.50095	34.93	PK-U	41.6	-19.8	0	56.73	-	-	-	-	68.2	-11.47	360	100	V

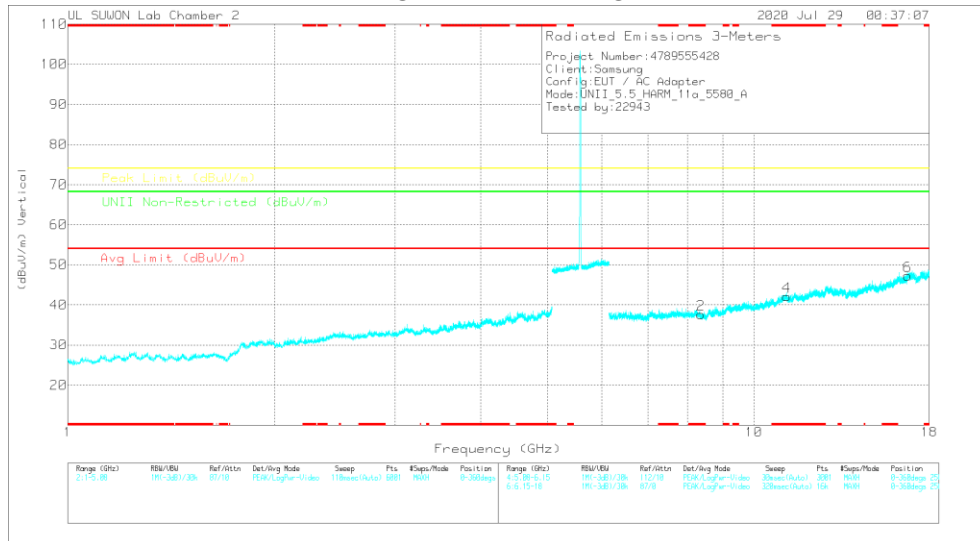
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

PK-U - U-NII: Maximum Peak

MID CHANNEL HORIZONTAL



MID CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

MID CHANNEL DATA

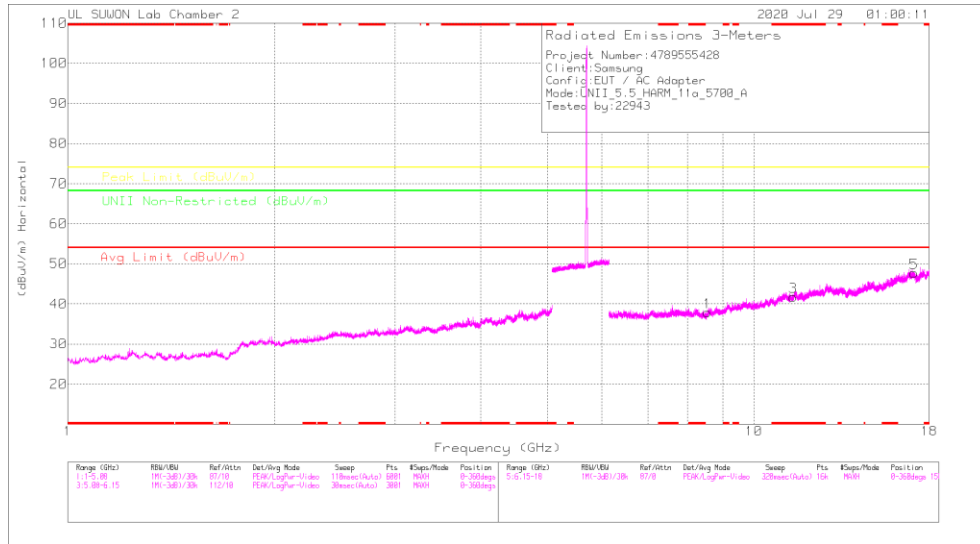
Radiated Emissions

Frequency (GHz)	Meas. Reading (dBm)	Det.	317_00218957	6GHz HP[5dB]	DC Cor (dB)	Corrected Reading (dBm)	Avg Limit (dBm)	Margin (dB)	Peak Limit (dBm)	Margin (dB)	UNII Non-Restricted (dBm)	Margin (dB)	Asimuth (Deg)	Height (cm)	Polarity
* 8.36842	36.25	PK-U	36	-23.6	0	49.85	-	-	74	-25.35	-	-	360	100	H
* 8.36952	36.46	PK-U	36	-23.6	0	49.86	-	-	74	-25.14	-	-	360	100	V
* 11.16164	33.64	PK-U	38.2	-19.3	0	52.54	-	-	74	-21.46	-	-	360	100	H
* 11.15924	33.74	PK-U	38.2	-19.2	0	52.74	-	-	74	-21.26	-	-	360	100	V
16.74059	34.87	PK-U	42	-18.9	0	57.97	-	-	-	-	68.2	-10.23	360	100	H
16.74034	34.22	PK-U	42	-18.9	0	57.32	-	-	-	-	68.2	-10.88	360	100	V

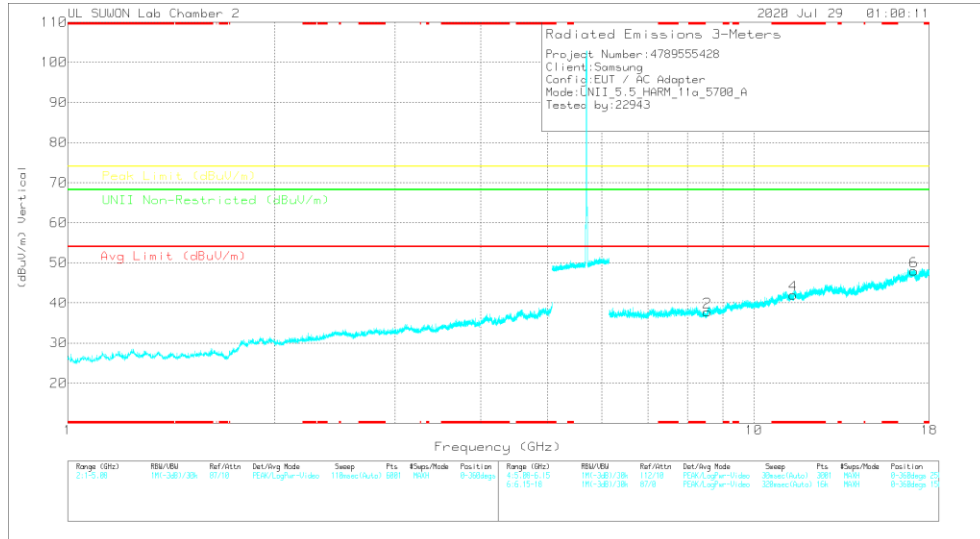
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

PK-U - U-NII: Maximum Peak

HIGH CHANNEL HORIZONTAL



HIGH CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

HIGH CHANNEL DATA

Radiated Emissions

Frequency (GHz)	Power Reading (dBm)	Det	UL17_5022857	@CHL_FH(F)	DC Corr (dB)	Combined Reading (dBm)	Avg Limit (dBm)	Margin (dB)	Peak Limit (dBm)	Margin (dB)	UNII Non-Restricted (dBm)	Margin (dB)	Adm'd (dBm)	Height (cm)	Priority
8.54982	34.92	PK-U	36.1	-22.5	0	48.52	-	-	-	-	68.2	-19.68	360	100	H
8.55051	34.77	PK-U	36.1	-22.5	0	48.37	-	-	-	-	68.2	-19.83	360	100	V
*11.39967	34.72	PK-U	38.2	-20	0	52.92	-	-	74	-21.08	-	-	360	100	H
*11.39975	34.09	PK-U	38.2	-20	0	52.29	-	-	74	-21.71	-	-	360	100	V
17.10057	34.44	PK-U	42	-18.3	0	58.14	-	-	-	-	68.2	-10.06	360	100	H
17.10176	34.31	PK-U	42	-18.2	0	58.11	-	-	-	-	68.2	-10.09	360	100	V

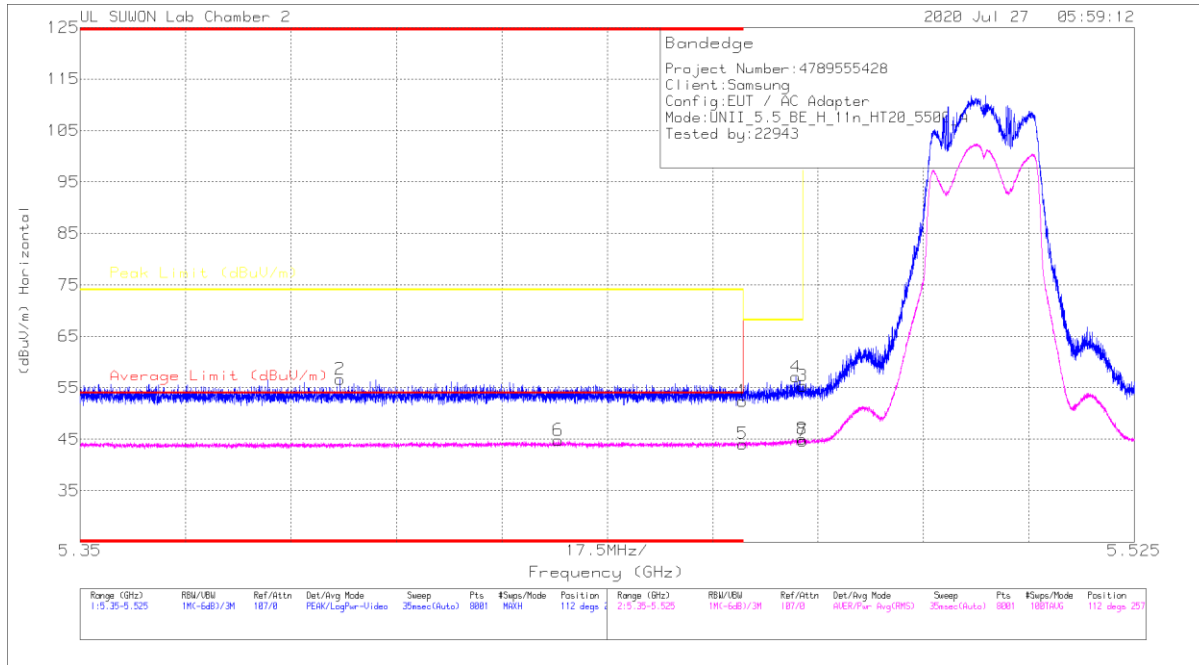
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

PK-U - U-NII: Maximum Peak

11.3.2. TX ABOVE 1GHz 802.11n HT20 2Tx MODE IN THE 5.5GHz BAND

RESTRICTED BANDEDGE (LOW CHANNEL)

HORIZONTAL PEAK AND AVERAGE DATA



Trace Markers

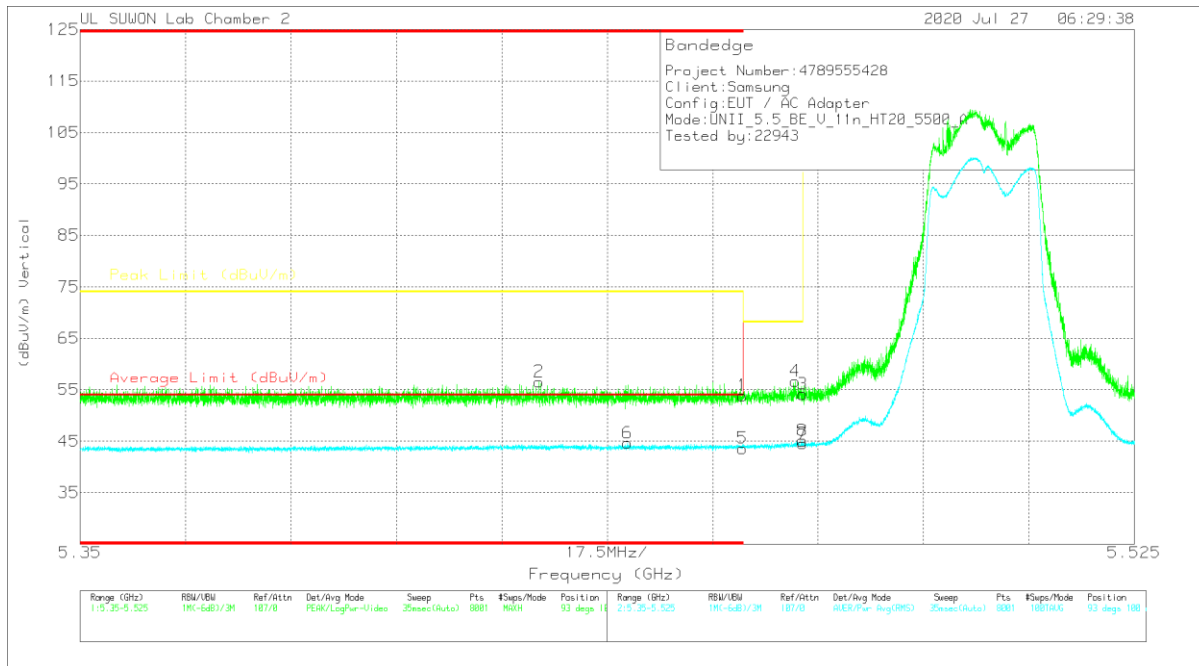
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00218957	10dB_ATT[dB]	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Altitude (Degs)	Height (cm)	Polarity
1	* 5.45999	35.52	Pk	35	-18.1	0	52.42	-	-	74	-21.58	112	257	H
2	* 5.39312	39.88	Pk	35	-18.2	0	56.68	-	-	74	-17.32	112	257	H
3	5.46998	38.48	Pk	35	-18.1	0	55.38	-	-	68.2	-12.82	112	257	H
4	5.46883	40.21	Pk	35	-18.1	0	57.11	-	-	68.2	-11.09	112	257	H
5	* 5.45999	27.2	RMS	35	-18.1	0	44.1	54	-9.9	-	-	112	257	H
6	* 5.42936	27.9	RMS	35	-18.1	0	44.8	54	-9.2	-	-	112	257	H
7	5.46998	27.79	RMS	35	-18.1	0	44.69	-	-	-	-	112	257	H
8	5.46983	28.15	RMS	35	-18.1	0	45.05	-	-	-	-	112	257	H

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

Pk - Peak detector

RMS - RMS detection

VERTICAL PEAK AND AVERAGE DATA



Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00218957	10dB_ATT[dB]	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* 5.45999	36.95	PK	35	-18.1	0	53.85	-	-	74	-20.15	93	100	V
2	* 5.42617	39.75	PK	35	-18.2	0	56.55	-	-	74	-17.45	93	100	V
3	5.46998	37.24	PK	35	-18.1	0	54.14	-	-	68.2	-14.06	93	100	V
4	5.46989	39.77	PK	35	-18.1	0	56.67	-	-	68.2	-11.53	93	100	V
5	* 5.45999	26.71	RMS	35	-18.1	0	43.61	54	-10.39	-	-	93	100	V
6	* 5.44091	27.75	RMS	35	-18.1	0	44.65	54	-9.35	-	-	93	100	V
7	5.46998	27.61	RMS	35	-18.1	0	44.51	-	-	-	-	93	100	V
8	5.4699	28.21	RMS	35	-18.1	0	45.11	-	-	-	-	93	100	V

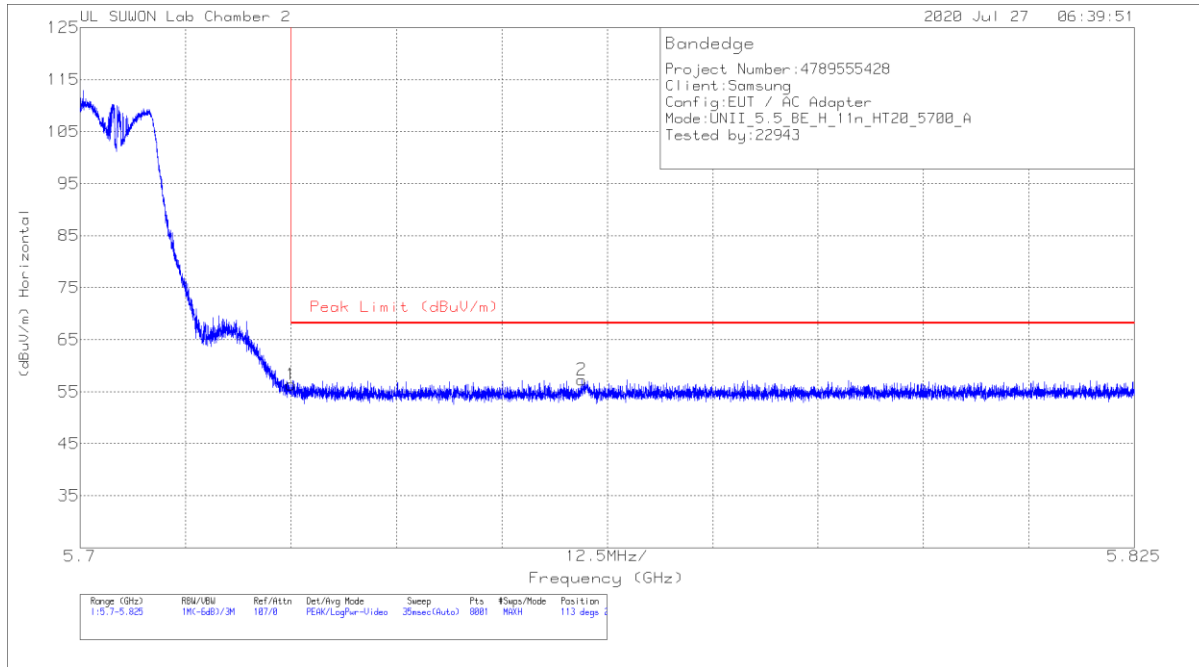
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

PK - Peak detector

RMS - RMS detection

AUTHORIZED BANDEDGE (HIGH CHANNEL)

HORIZONTAL PEAK DATA

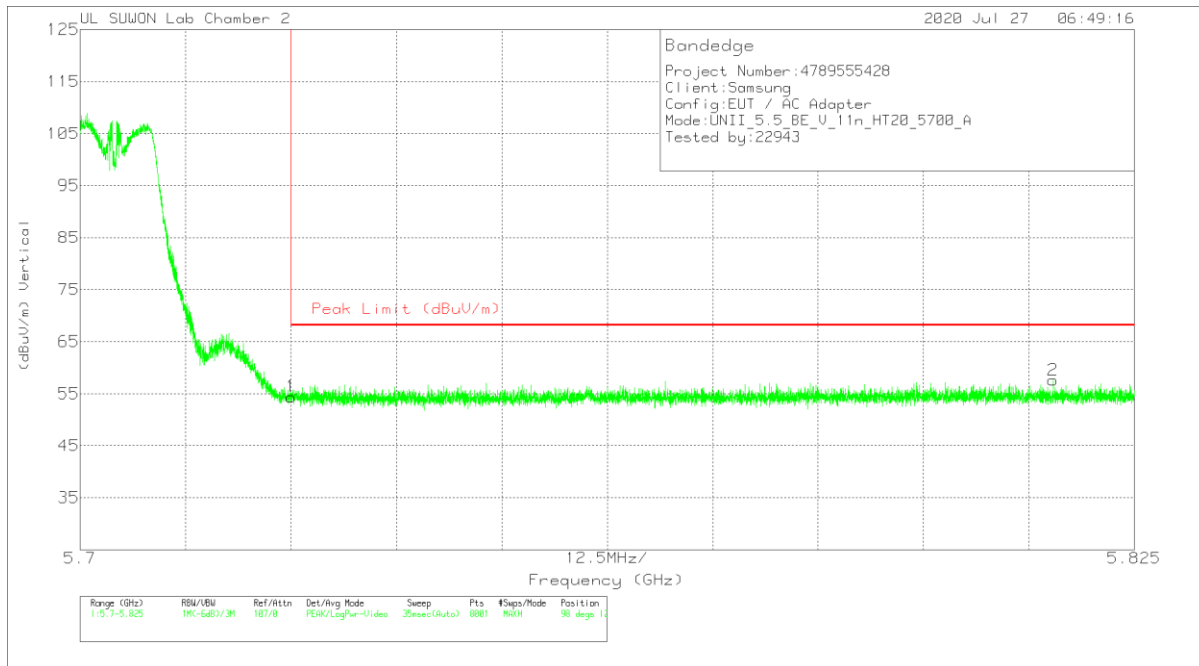


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00218957	10dB_ATT[dB]	DC Corr (dB)	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.72502	38.67	Pk	35.2	-17.5	0	56.37	68.2	-11.83	113	251	H
2	5.75948	39.59	Pk	35.2	-17.5	0	57.29	68.2	-10.91	113	251	H

Pk - Peak detector

VERTICAL PEAK AND AVERAGE DATA



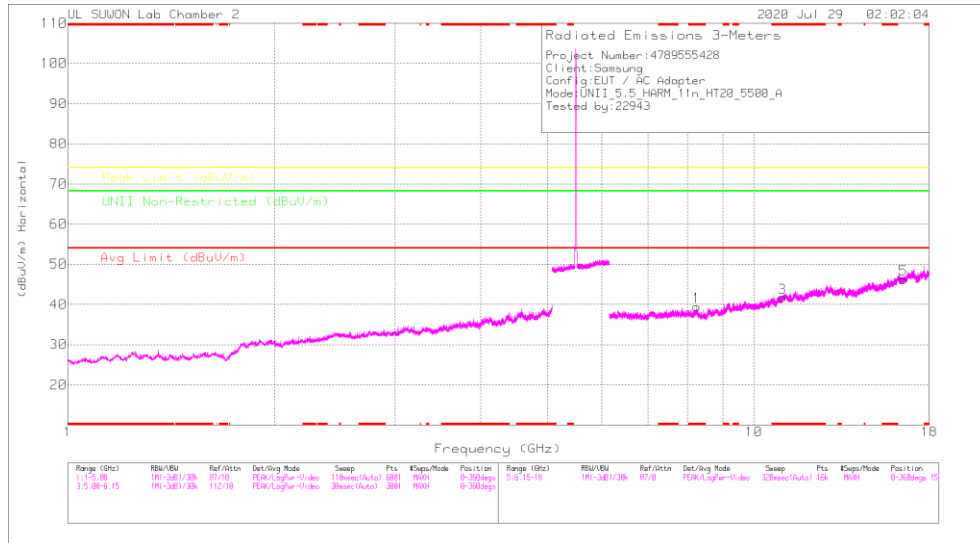
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	3117_00218957	10dB_ATT[dB]	DC Corr (dB)	Corrected Reading (dBuV/m)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	5.72502	36.71	Pk	35.2	-17.5	0	54.41	68.2	-13.79	98	120	V
2	5.81536	39.61	Pk	35.4	-17.4	0	57.61	68.2	-10.59	98	120	V

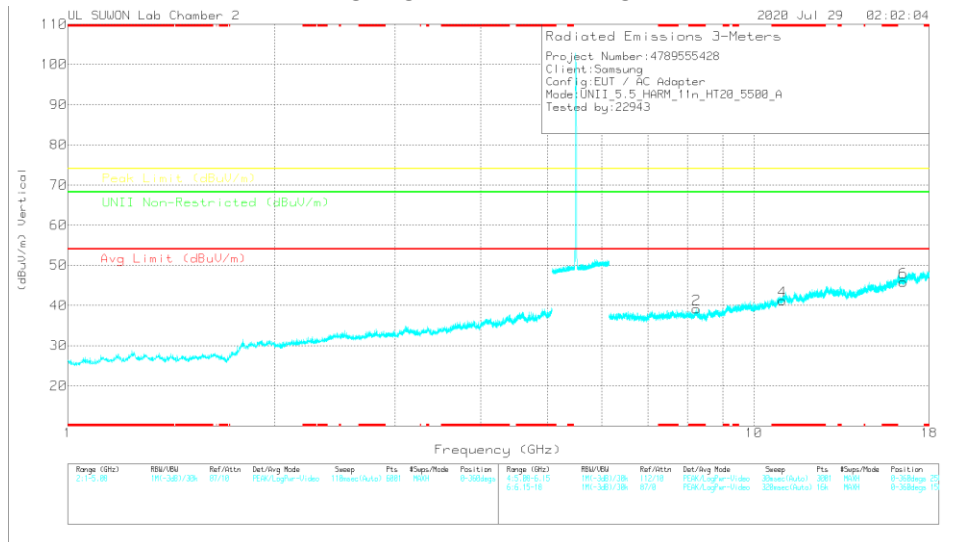
Pk - Peak detector

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL HORIZONTAL



LOW CHANNEL VERTICAL



Note: Emission was scanned up to 40GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

LOW CHANNEL DATA

Radiated Emissions

Frequency (GHz)	Meas. Reading (dBuV)	Det	317_00218957	6GHz_HFSS	DC Cor (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	UNII Non-Restricted (dBuV/m)	Margin (dB)	Antenna (dBi)	Height (cm)	Polarity
* 8.24952	35.46	PK-U	36	-22.9	0	48.56	-	-	74	-25.44	-	-	360	100	H
* 8.24969	35.89	PK-U	36	-22.9	0	48.99	-	-	74	-25.01	-	-	360	100	V
* 10.99867	34.22	PK-U	38	-20.3	0	51.92	-	-	74	-22.08	-	-	360	100	H
* 10.99915	33.67	PK-U	38	-20.3	0	51.57	-	-	74	-22.43	-	-	360	100	V
18.4999	34.83	PK-U	41.6	-19.8	0	56.63	-	-	-	-	68.2	-11.57	360	100	H
16.49944	35.35	PK-U	41.6	-19.8	0	57.15	-	-	-	-	68.2	-11.05	360	100	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band

PK-U - U-NII: Maximum Peak